Svachchhata in the Settlement or Slum Sanitation?

The Ontological Politics of 'Sanitation' and 'Slums' in an Informal Settlement of Mumbai, India

M.Sc. Thesis by Giacomo Galli

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Water Resource Management Group

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The Ontological Politics of 'Sanitation' and 'Slums' in an Informal Settlement of Mumbai, India

Master thesis Irrigation and Water Engineering submitted in partial fulfilment of the degree of Master of Science in International Land and Water Management at Wageningen University, the Netherlands

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Cover photograph: View of Garib Nagar (photograph by Giacomo Galli)

per Rina e Bianca

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SUMMARY

Over sixty per cent of Mumbai's residents, India's largest city with a metropolitan population of over 20 million people, are living in so-called 'slums'. Life in the 'slums' is by no means easy, as basic services such as water and sanitation services are often lacking. It is estimated that around a 500,000 people in Mumbai defecate in the open. This leads to dangerous situations, as in dense urban environments pathogens spread very easily. Despite worldwide campaigns to reduce the number of people living in 'slums' and the number of people without access to 'basic sanitation', efforts herein do not seem to achieve the desired results. In fact, some of these campaigns have even led to mass-scale demolition drives which have merely displaced people from their houses.

This thesis departs from the notion that terms like 'slum' and 'sanitation' have a very strong normative layer and are open to varying interpretations. These different views are not only discursive, but also material; as a matter of fact, both 'sanitation' as 'slums' can 'be done' in different ways. This notion of multiple enactments, which stems from the "diaspora of the Actor-Network Theory", allows considering that a single object can be enacted in multiple ways. This, in turn, creates space for a form of ontological politics to take place in which some enactments become more dominant than others.

This thesis engages with the concept of 'multiple enactments' by Annemarie Mol and that of 'collateral realities' by John Law in an attempt to 1) describe the various enactments of 'slum' and 'sanitation' as they take place in a Mumbai 'slum' and 2) analyse what the effects of these enactments are for the marginalised of the city.

This empirical data of this thesis is based on five months fieldwork in Mumbai, India where I was working as a volunteer for an NGO named YUVA. Together with staff from this organisation, which works on empowering the oppressed and marginalised throughout India, a study was set up to understand (and to bring about change in) the water and sanitation situation of a small informal settlement of the city. During this study attempts were made to have the communal toilet block of the settlement reconstructed and to improve the solid waste collection of the area. However, as the settlement is considered to be 'illegal' by the municipal institutions, no such services are provided. This enactment of 'illegality' is both discursive and material, as even the residents of the settlement are considered to be illegal and backward by city's bureaucrats.

In fact the through their enactment of illegality, the municipal bureaucracies shape the conditions for the residents of the settlement to turn to a local politician for access to public services. In a delicate process of negotiations, votes and money are exchanged for public services provision. In this process, a nexus is formed between local leaders, politicians and bureaucrats that shapes and reinforces local power structures. This differentiated mode of citizenship and of political organisation has been described and conceptualised by Partha Chatterjee with his concept of 'political society'. This enactment is also both material and semiotic; the communal toilet block is in fact a material manifestation of the differentiated citizenship of those living in the 'slums'.

Analysing various dominant global enactments of 'slums' and 'sanitation' leads to various insights, First, as these objects are being 'done', various 'collateral realities' are shaped. As working on 'sanitation' and 'slums' is part of 'doing development' and of 'bringing modernity', those that live in 'slums' or don't have access to 'sanitation' are unintentionally shaped as backward and unhygienic; these notions are actively used in the 'illegality' enactment. Second, as each enactment comes to being, it serves to increase the authority and thus the interests of the enabling organisation or network behind the same enactment. Third, in the process of making a coherent object, certain enactments are actively denied or distributed to other realms. In this way, according to dominant enactments, 'doing sanitation in slums' does not include (local) political processes and power analyses.

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ACRONYMS

ANT Actor-Network Theory

BMC Brihanmumbai Municipal Corporation; Greater Mumbai Municipal Corporation

CTB Communal Toilet Block

GTZ Deutsche Gesellschaft für Technische Zusammenarbeit

INGO International NGO

IWE Irrigation and Water Engineering Group, Wageningen University

JMP Joint Monitoring Program; collaboration of WHO and UNICEF to monitor MDG target 7c

MDG Millennium Development Goals`

MIL Master International Land and Water Management, Wageningen University

MLA Member of Legislative Authority, India state level

MP Member of Parliament, India national level

NGO Non-Governmental Organisation

SDI Shack/Slum Dwellers International

SPARC Society for the Promotion of Area Resource Centres

SSP Slum Sanitation Programme, Mumbai

UN United Nations

UN HABITAT United Nations Human Settlements Programme

UNICEF United Nations Children's Fund

YUVA Youth for Unity and Voluntary Action

WHO World Health Organisation

WSP Water and Sanitation Program, World Bank

PART 1: ONTOLOGIES, SLUMS, SANITATION AND POLITICS

CHAPTER 1: INTRODUCTION

If ever you get the chance to take a suburban train in Mumbai and by a stroke of extreme luck you happen to obtain a place next to a window, or you stand in one of the open doorways, you will probably see a shitter along your journey. It might take a trained eye and they won't be present at all times, but if you look, you will surely see one. Once, while sitting on the Harbour Line the train stopped between Mahim and King's Circle, as a train sometimes does. We halted for quite a while and he sat there right below us, a man squatting next to the train tracks. The people standing in the open doorway were looking down on him and he seemed not to know whether to look up or not. Probably assuming that the train would start riding soon, the man just stayed put with his face down and his trousers at his ankles while a full 12 car train of the world's most busy train service was parked at two metres distance. It was a strange sensation for me, not to know where to look and therefore pretend it's the most normal thing in the world, which arguably it is. However, it wasn't even that awkward a moment for me, it somehow seemed so inevitable that such an event was bound to happen; the rest of the passengers were probably already accustomed to this disconcerting spectacle.

Looking back on the incident I started to wonder what had happened. Had I, by doing research on the subject, become overexposed, used to or just plain insensitive to the fact that a man was shitting next to me? Why did this spectacle of witnessing a man during his private act not bother me one bit? Perhaps it is true that one can get used to everything. As I had already been in Mumbai for a couple of months researching the subject of sanitation in slums, I had already read, talked and from a distance even seen these events before. I remember how, similarly, upon my arrival in the city it shocked me to see so many people sleeping on the streets and how unnatural the aspect of seeing slums right next luxurious apartments appeared to me; after some time I barely even noticed this anymore. Mumbai is a city of extremes, and by the time I left India five months later, I noticed, much to my own discontent, that I was travelling between these extremes with surprising agility.

This thesis document comes forth from these five months of field research and a prior interest of several years. It relates to the topic of sanitation in poor urban areas, also known as slums. As such it also relates to the themes of urbanisation, waste, water governance, poverty, exclusion and post-colonial democracy. It all started with my desire to live in a slum in order to experience that which I had only read about in various apocalyptic documents. I wanted to experience the 'slum' and the 'sanitation problem' from a resident's perspective. My aspiration to live inside a slum, to experience urban poverty, arose partly from the fact that these gloomy reports (e.g. (Davis, 2006)) did not convince me fully; there must be more than just sheer misery in the lives of slumdwellers? On the other side my wish to gain a direct insight in the lives of the urban poor also resulted from what I had learned throughout all my university courses: farmers know their field better than any expert will ever do; I assumed that if that were true, it must also apply to those living in a slum. It seems only logical to me that one needs to understand the residents' perspectives on sanitation problems before prescribing policy. Logical as this may sound, there is evidence that in many instances this is not the case. Joshi and co-authors write how elusive sanitation targets do not arise from a lack of demand from the users' side or from technical failures, rather they reflect from social, cultural and political disparities between what is internationally considered as 'improved' sanitation and the complex realities of urban poverty (Joshi et al., 2011).

1.1 URBANISATION, SANITATION AND THE 'MEGACITY'

It is estimated that 2,5 billion people lack access to sanitation worldwide, of which 1,1 billion practice open defecation (JMP, 2012). Poor sanitation, together with lack of clean drinking water and hygiene behaviour, is linked to a variety of water-related diseases, many of which cause diarrhoea; persistent diarrhoea is the world's second cause of death among children under the age of five. Policies also link a lack of toilets in schools to lower attendance, especially by girls. Global efforts to reduce the number of the people without access to sanitation have not succeeded in the past; the Millennium Development Goal 7C of halving the proportion of the world's population without sustainable access to basic sanitation compared to 1990 levels appears to be out of reach (JMP, 2012).
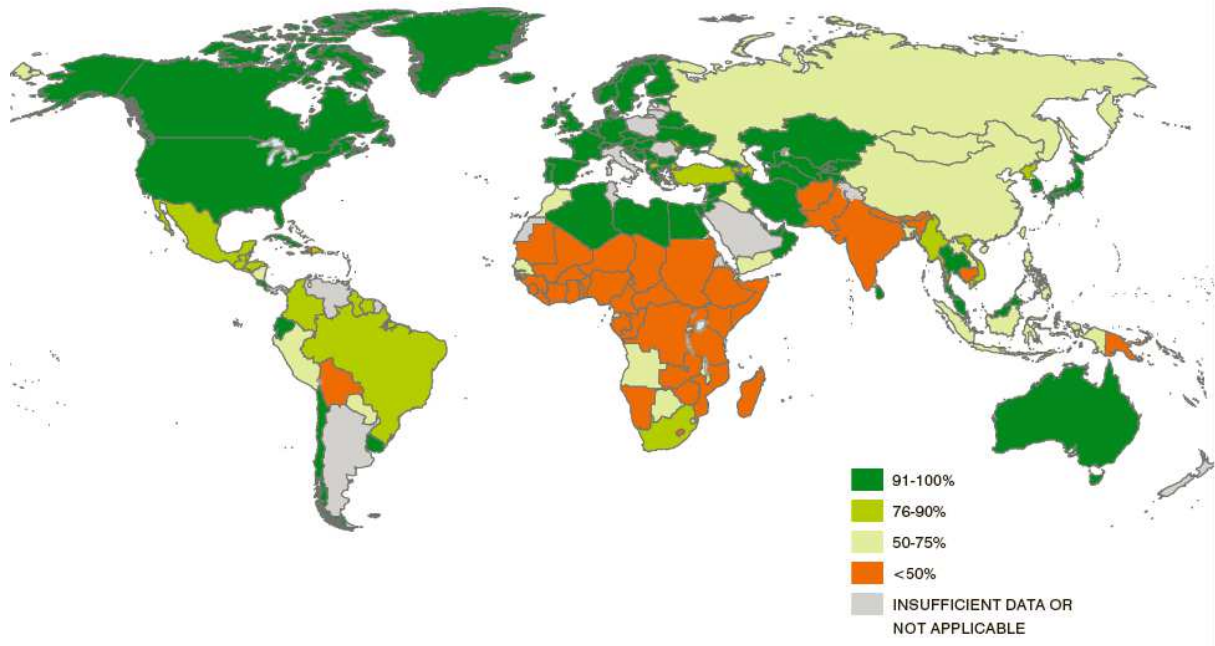
FIGURE 1: PROPORTION OF THE POPULATION USING IMPROVED SANITATION IN 2010 (JMP, 2012)

It is estimated that 814 million of the people without access to sanitation live in India; the country also holds the dubious honour of having the largest quantity of people practicing open defecation, 626 million (JMP, 2012). Though most of the people lacking sanitation (1.7 billion) live in rural areas, the lack of facilities in urban areas also pose a great danger as infectious diseases can be spread rapidly in a city with a high population density.

Since 2008, more than half of the world's population lives in urban centres. In the global phenomenon of urbanisation, people move from rural areas to cities, mainly to flee hardship or find better remuneration for their employment. This process has created the rise of so-called 'megacities', urban areas with a population of over 10 million; these cities, are also characterised by high population densities. In the first half of the 20th century urbanisation used to be a phenomenon found mainly in 'developed' countries; however it has become a global commonality. In 'developing' countries rapid urbanisation has led to the rise of slums or shantytowns; extremely dense settlements characterised by sub-standard living conditions where the urban poor reside. It is estimated that over 800 million people live in such slums (UN HABITAT, 2010). In these areas poor sanitation is characterised by the production and heaping of large amounts of waste and the generation of vast volumes of wastewater which pollute water bodies and shallow groundwater. As slum areas are typically considered to be illegal settlements by the public authorities, the residents in these areas lack access to public services such as water, toilets, sewage and electricity.
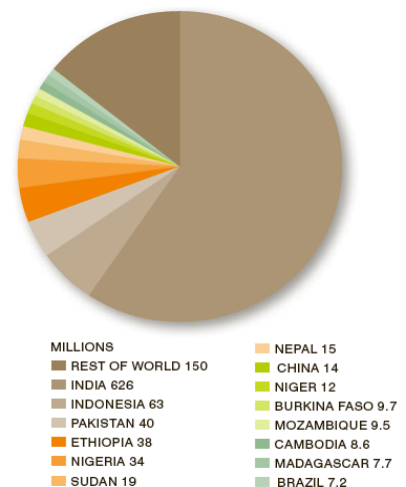
FIGURE 2: COUNTRIES WITH THE LARGEST NUMBERS OF PEOPLE PRACTISING OPEN DEFECATION (JMP, 2012)
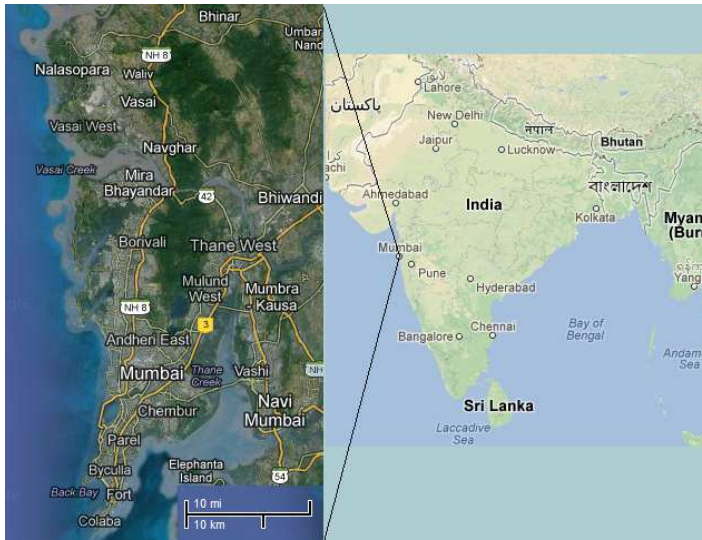
FIGURE 3: MUMBAI METROPOLITAN REGION (SOURCE: GOOGLE MAPS)

One of these megacities is Mumbai, formerly known as Bombay. Not only is Mumbai the largest city in India, with a population of over 12 million in the urban area and 22 million in the metropolitan region (Government of India, 2011), it is also the fourth most populated city in the world.

One of the characteristics of the contemporary 'megacity' which is also present in Mumbai, is the explosive population growth fuelled by immigration to the city. This rapid growth, depicted in figure 4, leads to a strain on the urban infrastructure; for example the Mumbai suburban railway has the highest passenger density of any urban railway system in the world and carries over 7 million commuters daily on only three railway lines; the municipal water infrastructure has, despite various extensions to the supply system, always been insufficient to provide all of the citizens with water (Gandy, 2008). The average population density of the city is over 27 000 inhabitants per square kilometre; in the slums this number can be 20 times higher[1]. A vast majority of the workforce, around 67% according to estimates, consists of informal workers; this number largely coincides with the sixty-plus per cent of Mumbai's population that live in slums (Hindustan Times, 2010; Government of India, 2011). Three quarters of the people living in such slums, over 5 million people, are dependent on public toilets for their daily needs (WSP, 2006; Government of India, 2011). One of these public toilet seats is shared on average by 81 people (YUVA and Montgomery Watson Consultants, 2001); another 6% of those living in slums, or around half a million people, defecate in the open (WSP, 2006; Government of India, 2011). These estimates, however extreme, actually mask the dire situations that so many of Mumbai's inhabitants experience on a daily basis. In fact, the lack of toilets is just one of the many concerns that millions of slumdwellers face in Mumbai. Threats of evictions (Bhide, 2009), no access to water (Dimri, 2010), poor health (Agarwal, 2011), poor education, proneness to disasters (Parthasarathy, 2009) are just some of the other concerns.

1.2 AN INTRODUCTION TO MUMBAI

Mumbai is the capital city of the state of Maharashtra and the most populous city of India. It is also the richest city of India, contributing significantly to the country's economy by being the commercial and entertainment capital of the India. The city of Mumbai comprises two districts: Mumbai city (also known as South
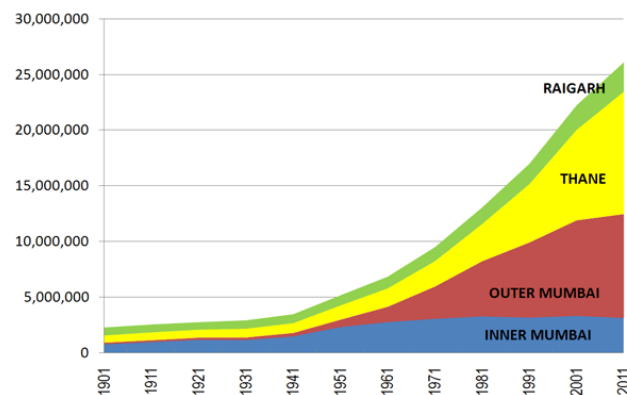
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[1] Data for population density in slums is not readily available. These numbers are composed from data of Dharavi and my own research area.

Mumbai) and the suburban district. Both are administered for the largest part by the Brihanmumbai Municipal Corporation (BMC). The Mumbai metropolitan region, with a population of over 20 million is formed together with the neighbouring Thane district and Navi Mumbai.

1.2.1 A BRIEF HISTORY

The earliest known inhabitants of what is now Mumbai, were the Koli, a tribe of fishermen whose goddess Mumbadevi gave the Marathi name to the city. Paleolithic stones found at Kandivali (what are now the northern suburbs) suggest that the area was inhabited since the Stone Age. Around 1000 BCE the city was a seatrade centre with Persia and Egypt. In the third century BCE the seven islands were part of the Maurya empire and ruled by its Buddhist emperor Ashoka. The Kanheri Caves, which are now located in Sanjay Gandhi national park in Borivali, were excavated in the third century BCE. The Greek geographer and astronomer Ptolemaeus referred to the seven islands as Heptanesia in the second century CE. Between the second century CE and the ninth century CE various Hindu dynasties ruled the city, the Elephanta caves (on Elephanta island) are the most famous remnant constructions from these times. After these a series of Muslim rulers governed the city; the Delhi Sultanate annexed the islands in the 14th century and later they became part of the Gujarat Sultanate. Under their rule the Haji Ali tomb was built in 1431 as well as many other mosques. In the 16th century the islands were offered to the Portuguese under pressure of the Mughals.

COLONIAL TIMES

Various Catholic orders which still stand to date were founded by the Portuguese. Also the name Bombaim comes from this era, (*bom baia* meaning good bay). The islands came in British control in the 17th century as part of the dowry between Charles II of England and Catherine of Braganza, daughter of King Joao IV of Portugal. This process had been instigated by the Surat Council of the British Empire as they urged the British

East India Company to purchase Bombay from the Portuguese, to counter the growing power of the Dutch Empire. Other areas such as Mahim, Sion, Dharavi, and Wadala were acquired shortly thereafter in 1666; the islands

FIGURE 5: THE SEVEN ISLANDS AND THEIR TRANSFORMATION INTO THE CITY (SOURCES: HTTP://EN.WIKIPEDIA.ORG/WIKI/FILE:SITUATIONSPLAN_VON_BOMBAY_(MUMBAI).JPG HTTP://EN.WIKIPEDIA.ORG/WIKI/FILE:SEVEN_ISLANDS_OF_BOMBAY_EN.SVG

were then leased to the East India Company in 1668. The population quickly grew from 10 000 in 1661 to 60 000 in 1675 and the islands withstood several attacks from the Mughals and the Dutch; in 1687 the British East India Company moved its headquarters to Bombay from Surat. In the first half of the 18th century the Marathas had conquered Salsette island and Baseim (now known as the suburb Vasai). By that time Bombay had become a major trading town as many migrants from across India settled there. In the latter half of the 18th century the British occupied and gained control of Salsette Island through a series of treaties with the Marathas. In 1782 the Governor of Bombay Willian Hornby assumed office and by 1784 the Hornby Vellard engineering project was initiated to join the seven islands.

What is often not mentioned, is that the city relied to a great extent on the Opium trade with China (Prakash, 2010). In the opium triangle, a nexus was established by the East India Company: Indian peasants were forced to grow opium, which was smuggled to China, sold in return for Chinese tea and silk of which the profits were sent home. As the British did not control the whole of India at the time, private indigenous merchants entered this trade and established a new route through Bombay. By the 1820s Bombay had surpassed Calcutta as the largest trading port. Most of these merchants were Parsis, of which Sir Jamsetjee Jejeebhoy (also knwn as Sir J.J.), the first Indian to be knighted (1842), was the most famous. Another leading trader was David Sassoon, a Baghdadi Jew who eventually opened up a trading post in Hong Kong. One author argues that the rise of Bombay as an international trading centre and the capital gains that fuelled the cotton industry as well as the growth of the city were all made by trading Opium (Farooqui, 2005). Farooqui also demonstrates how this Parsi bourgeoisie developed South Bombay; most of the bungalows in the now posh neighbourhoods which were lent out to the Europeans were Parsi-owned. In the 1830-40s' they also owned and developed many of Bombay's suburbs (ibid). Sir J.J.'s wife financed the Mahim Causeway connecting Bombay Island to Salsette Island. Sir Albert Sassoon (Abdullah by birth; son of David) constructed the Sassoon Dock at Colaba. Bombay's population had risen from 162 000 in 1826 to 566 000 in 1849.

Bombay was the cradle of various other important engineering projects which left their mark both on the British colonial empire as well as contemporary India such as: the first passenger railway line of British India connecting Bombay to Thane (1853); the first cotton mill established in the city (1854); the Vehar Dam (1860) was the first municipal water supply scheme in British India; The Bombay Shipping and Iron Shipping Companies (1863); the Bombay Coast and River Steam Navigation Company (1866); the Bombay Tramway Company Limited (1873; later Bombay Electric Supply and Transport, BEST); and the arrival of electricity in 1882. All these new companies and infrastructural projects coincided with a spectacular rise in cotton-trade due to increased prices because of the outbreak of the American Civil War (1861) and the opening of the Suez Canal (1869). This period of spectacular economic growth also saw the rise of various institutions such as the University of Bombay (1857); the Bombay Municipal Corporation (1872; now Brihanmumbai Municipal Corporation, BMC); the Bombay Port Trust (1870); etc.

The cheap labour that was necessary in the cotton mills came originally from the Deccan Plateau and the Konkan Coast; from 1880 onwards workers came also from the United Provinces (now Uttar Pradesh; UP). Already in those days informal labour was a driving force fuelling the city's growth; a little less than a third of the cotton mills' working force were day-labourers (Prakash, 2010). By the start of the 20th century the population of Bombay had risen to almost one million, of which most were immigrants. The outbreak of the bubonic plague in 1896 and the series of events and policy initiatives that emanated from it will be discussed in the third chapter.

INDEPENDENCE AND POST-COLONIAL TIMES

To discuss the Indian independence struggle is beyond the scope of this thesis; however, I would like to mention some relevant points that impinge on this study. One important aspect to note is the fact that some of the crucial supporters of this struggle were members of the English-educated Indian intelligentsia of South Bombay (Prakash, 2010). This English oriented class were to continue to dominate in the post-independence period, by merely replacing officials with Indians without changing the societal structures underpinning the colonial bureaucracy (Varma, 2007).

The partition of British India led to communal violence throughout the subcontinent as India and Pakistan were created. Communal violence was not unknown to Bombay at the time, in the 19th century riots had broken out on several occasions between Parsis and Muslims and Hindu-Muslim violence had occurred various times in the early 20th century. In spite of the fact that Bombay witnessed fewer killings during the Partition than other parts of the country, communal tensions did influence the city heavily; several neighbourhoods were divided

along religious lines (Prakash, 2010). This violence between Hindus and Muslims would continue to shape the city up to date.

A major factor in the shaping of post-colonial Bombay was the division of Bombay State (the old Bombay Presidency under British rule) into Maharashtra and Gujarat. In spite of Bombay becoming the capital of Maharashtra, it still kept its pluralistic character; the Gujarati still maintained an important financial presence in the city, while literate South Indians provided much of the white-collar labour. This resulted in discontent amongst the Marathi population which found expression in the establishment of Shiv Sena (Shiva's Army) in 1966. This political party started out as a movement of social work for the so-called "sons of the soil", the Marathi speakers that had to compete heavily for the middle-class jobs in the bureaucracy. Arguably, Shiv Sena is in that sense not only a political party, I have seen Shiv sena ambulances for instance (also explained in Mehta, 2005). However, its followers, the Shiv Saniks are mainly known for their violence. The Shiv Sena with its violent fascist ideology, led by its supreme leader Bal Thackeray, sparked various attacks and riots throughout the years. The 1992-1993 riots between Hindus and Muslims that led to the death of almost 1,000 people are the most extreme example of how this party operated. The events that took place in those months were investigated by a commission of inquiry led by a judge (the Srikrishna Commission). This commission found Shiv Sena to be largely responsible for the riots, but their recommendations have been rejected by the Maharashtra Government up to date. Raj Thackeray, Bal's nephew has recently split from Shiv Sena creating his own party, the Maharashtra Navnirman Sena (MNS; Maharashtra Reformation Army), this party stands out for its opposition against immigration from Bihar and Uttar Pradesh (UP); also his party is known for the use of violence. I experienced a glimpse of the terror that must have reigned in the period of the 92-93 riots as I witnessed the total paralysis of the city during 3 days resulting from the death on Bal Thackeray on 17 November 2012. As news broke out of his death, all of Mumbai's residents rushed home, fearing that riots might break out. All economic activities came to a halt as rumours quickly spread that any open business (including taxi's) would be targeted by Shiv Saniks.

TERRORIST ATTACKS IN MUMBAI
The climate of fear is not only instigated by riots precipitated by the nationalist right, in particular Shiv Sena. A series of terrorist attacks carried out by Muslim extremists have also left a deep mark in the city.

TABLE 1: TERRORIST ATTACKS IN MUMBAI IN TH LAST 20 YEARS

Date	Event	Casualties
12 March 1993	13 bombs throughout city	257
6 December 2002	Bomb in a bus in Ghatkopar	2
27 January 2003	Bomb on a bicycle in Vile Parle	1
14 March 2003	Bomb in a train in Mulund	10
28 July 2003	Bomb in a bus in Ghatkopar	4
25 August 2003	Two Bombs in cars near the Gateway of India and Zaveri Bazaar	50
11 July 2006	Seven bombs in trains	209
26 - 29 November 2008	Coordinated series of attacks in South Mumbai	164
13 July 2011	Three bombs at different locations	26

These events have to be seen in relation to each other and to the Hindu-Muslim tensions that have literally shaped the country. The 1993 bomb blasts were allegedly orchestrated by Dawood Ibrahim, a legendary underworld godfather living in exile in Dubai, as a message not to mess with Muslims. Hansen (2001; p125-126) reports how the series of blasts helped to create an atmosphere of fear in which the Muslims felt safer. There is also a clear link between extremist violence and the everlasting conflict between India and Pakistan. The only attacker caught alive of the 2011 attacks, where the terrorists literally landed on the beaches of Mumbai, confessed that the attacks had been supported by the Pakistani intelligence service ISI. These events have also helped to shape the popular discourse linking immigrants (particularly Pakistani and Bangladeshi) with terrorism.

These events have not only influenced the political and popular discourse (if one can separate between the two), but the atmosphere of fear has also affected residential patterns. Especially in slums this has led to the migration of Muslims or Hindus into separate areas, thereby shaping settlements into mono-religious entities (Sharma, 2000; Contractor, 2012). Residential segregation even occurs in the better-off flats of the city. Housing societies exert a great influence in deciding who gets to buy or rent an empty apartment; bachelors, the 'non-veg' and Muslim residents are often unwanted by the conservative members of these societies. As a result, Muslims are only left with the choice of moving to predominantly Muslim areas, thereby reinforcing the segregation. In areas that are overwhelmingly Muslim it is more difficult to obtain public services such as water (Anand, 2012; Contractor, 2012). This is partly related to the fact that the elected representative of such an area cannot count on broad support within the city council and the executive units (Contractor, 2012). Since 2008, all affairs handled in the civic body governing the city are handled exclusively in Marathi. This means that the executive bureaucracy is often dominated by Marathi speakers, effectively excluding access of North Indians (the origin region of most Muslims in Mumbai) to this body.

1.2.2 POLITICAL STRUCTURE

Mumbai is governed by the Brihanmumbai Municipal Corporation (BMC), also known as the Municipal Corporation of Greater Mumbai (MCGM), formed in 1888. The BMC has a legislative and executive branch. The executive branch, also known as the administrative wing, is led by the Municipal Commissioner, an Indian Administrative Service (IAS) officer appointed by the Maharashtra state government. The legislative powers, or the deliberative wing, are vested in the Corporation Council; this is made up of 227 directly elected councillors, formerly known as and still often referred to as corporators, representing the 24 municipal wards (A to T) and five councillors "having special knowledge or experience in municipal administration" nominated by the BMC. The Council is led by a Mayor whose role is mostly ceremonial with limited powers, the Mayor is chosen indirectly by the councillors. The council elections take place every five years while the Mayor, Deputy Mayor, and Municipal Commissioner each serve a term of two and a half years.

In the executive branch of the BMC, the main responsibility for service delivery and infrastructure maintenance lies thus with the Municipal Commissioner (MC); under his chain of command there are Additional Municipal Commissioners, Deputy Municipal Commissioners, Assistant Commissioners and various heads of different Departments. Additional Municipal Commissioners (AMCs), now there are four, act as commissioners for various departments. Under the command of the AMCs are the Deputy Municipal Commissioners (DMCs) and below them the Assistant Commissioners (ACs). The MC and the AMC are appointed by the Maharashtra state government, the DMCs are appointed by the Corporation with approval of the state government and the ACs are also appointed by the Corporation, but on recommendation of the Maharashtra Public Services. The Assistant Commissioners, formerly known as and still often referred to as Ward Officers, are the executive

heads of one of the 24 administrative city wards. Their task is to "play a key role in day to day service delivery to citizens"[2].

Mumbaikars also vote for the state and national elections every five years. Six parliamentary constituencies represent Mumbai in the Indian national elections, each electing a Member of Parliament (MP) to the Lok Sabha, the lower house of the Indian Parliament. Mumbai's representation in the Maharashtra state assembly comprises of 36 Members of the Legislative Assembly (MLA). These are voted from assembly constituencies in Mumbai to the Maharashtra Vidhan Sabha (Legislative Assembly).

The demarcation between the elected legislative body and the appointed executive body can cause problems if the ruling party at the state level, which appoints the Municipal Commissioner, is of a different party than the majority in the BMC council. This has often resulted in deliberate non-cooperation between the two parties (Chaplin, 2011). In extreme cases the municipal corporation can be superseded by the state government; the last time this happened in Mumbai was in 1984-1985.

1.2.3 GEOGRAPHY AND CLIMATE

The city of Mumbai is located on the Konkan coast of Western India, it is situated on a peninsula that has been shaped since colonial times. It originally comprised seven small islands (the anglicised names are: Colaba, Mazagaon, Mahim, Parel, Bombay Island, Worli and Old Woman's Island), these islands were joined by the Hornby Vellard project (1782-1838); through drainage and reclamation and by constructing causeways and breakwaters Bombay Island was formed. Salsette Island, which lies to the North was incorporated in the 1950s when it was linked to Bombay Island by a causeway. The city expanded even further since the 1970s when Salsette Island was linked to the mainland and through the construction of New Bombay (now Navi Mumbai).

Bombay Island is formed by two ridges of low hill which enclose a low-lying plain, of which one fourth lies below sea level. The most southern tip of the peninsula is Colaba Point. To the east of the peninsula lies Mumbai Harbour; on the west between Colaba Point and Malabar Hill, one of the highest points of the city, lays the shallow Back Bay. The now touristic and business area Fort, which lies between the Back Bay and the harbour, is where the colonial fortifications lay, around which the city grew. The Powai – Kanheri hills in the Sanjay Gandhi National Park, at the north of Salsette Island form the catchment area of three lakes: Powai, Vihar and Tulsi. These lakes were used for the original municipal drinking water supply system engineered by the British; this system has been incrementally expanded to one with interconnected reservoirs up to hundreds of kilometres away from the city (Gandy, 2008). Various creeks, characterised by the presence of mud banks and swamps, cut into the peninsula; the largest is the Thane creek. The Mahim, Mithi, Dahisar and Polsar rivers drain the areas; the three lakes mentioned above drain into the Mithi River which discharges into the Arabian Sea between Bandra and Worli. Some sources suggest that the name Mithi, meaning 'sweet' in Marathi, indicates that this was a source for sweet water for the Koli fisher tribes living on its banks (Gandy, 2007) .

Despite claims that Mumbai was built on rotting fish and coconut leaves (Sharma, 2000) the geological composition consists mainly of two types of soils; the hard basalt rocks in the hills and the soft alluvium material in the low-lying plains (Gupta, 2009). In vast traits of the city's surface the groundwater depth is found 2-5m below ground; in some areas at even less than 2m. Pre-monsoon there is a drop of approximately 20cm in groundwater depth, partly also caused by the large number of wells; post-monsoon there is groundwater rise in the low-lying areas and drops in the other areas.

Mumbai has a tropical climate, characterised by high temperatures throughout the year with a mean minimum temperature of 16.3°C and mean maximum temperature of 32.2° at Santacruz (Gupta, 2009). Precipitation occurs in the form of a heavy south-west monsoon from June to September. The normal annual rainfall in the Mumbai district varies from 1800 mm to 2400 mm. The minimum precipitation rates are found in the central

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[2] http://www.mcgm.gov.in Accessed on 12-2-2013

part of the district around Kurla and it gradually increases towards the north and reaches a maximum around Santacruz (ibid).

On the 26th of July 2005 994mm of rain fell in 24 hours, followed by heavy rains for another two weeks. This resulted in massive floods and landslides that caused the death of over a thousand people. In July 2006 smaller floods occurred again. The 2005 floods were partly also caused by the fact that the Mithi River has been severely altered by the construction of the Bandra-Kurla Complex, a high-end residential and business district in central Mumbai. The slums constructed on its riverbanks, the so-called "encroachments", have also narrowed the river. Those that lost their lives during the floods of 2005 were mainly society's marginalised, the *dalits*, the people from Bihar and UP (even high-caste) and Muslims (Parthasarathy, 2009). It is clear that this social marginalisation is also expressed in spatial terms; these people live in the flood prone low-lying areas and along the river banks, while the rich live in the hills.
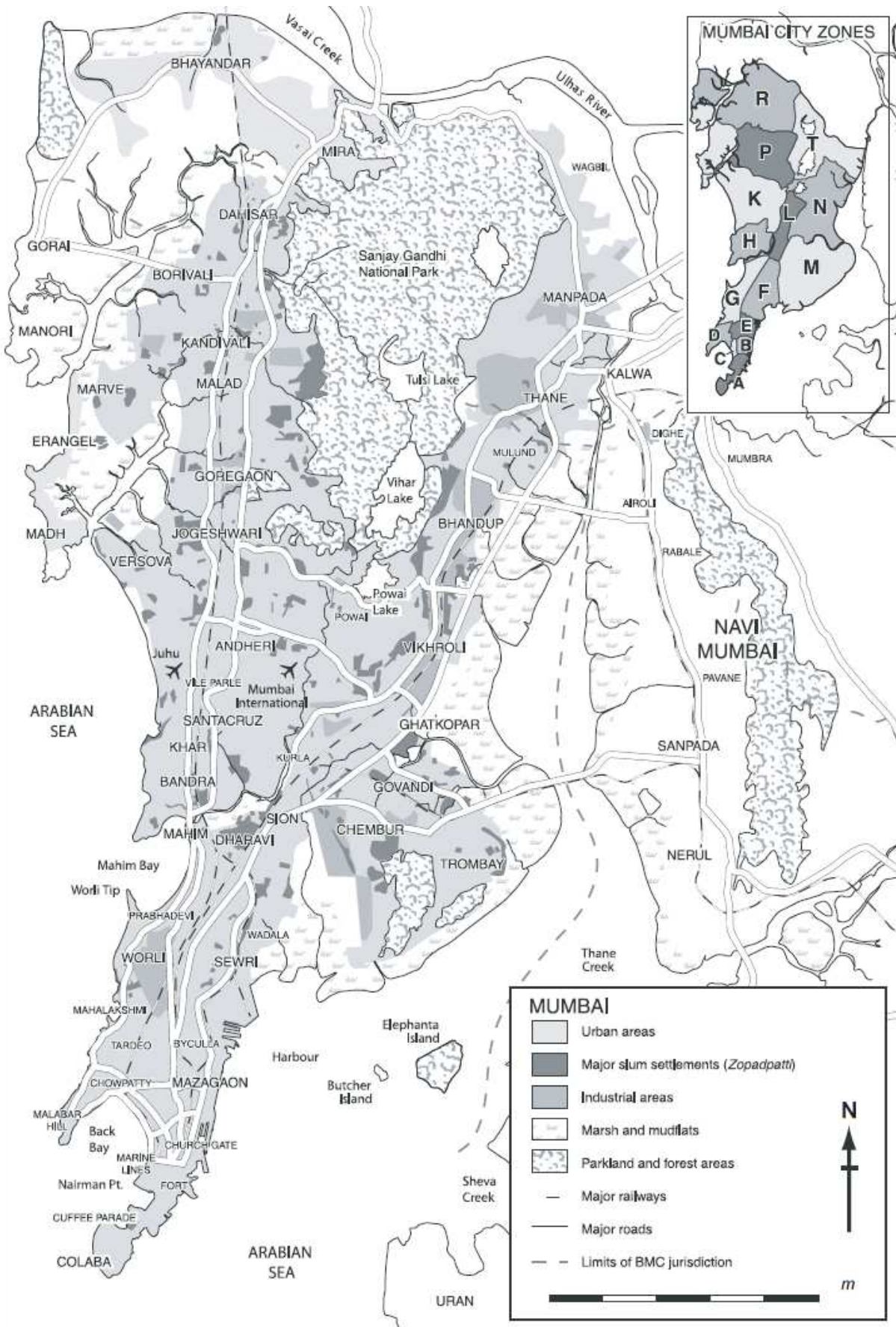
Figure 6: Mumbai city including the extended suburbs (Gandy, 2008)

1.3 THE ARGUMENT

My interest in this research topic started from the alarmist tales depicted above; those of increasing urbanisation, the terrible state of sanitation and wastewater management, the growing number of people living in slums and the idea that at least in a large part of the world this seems the most likely model for the future (see for example Davis, 2006). However, as my interest in the topic grew I realised that this story, that is common to UN reports and documents of development NGOs, is just one story that can be told. It is not an untrue story, but it only paints a rather alarmist picture for which immediate large scale investments seem the appropriate answer. However, these tales of global tragedies often mask the underlying causes; the compelling argument that something must be done as soon as possible leaves little space to understand how the current situation came to be. These alarmist visions also avoid difficult questions; for example lack of (public) investment in sanitation is presented as an independent fact that can be changed, it is not seen as a reflection of wider issues in society. In the Indian context, I often wondered how the country is able to have nuclear arms and satellites in the sky, but at the same time more than half of its citizens are shitting in the open (JMP, 2012); at the same it also amazed me how there are more mobile phones than toilets in India (BBC News, 2012).

Parallel to this, large scale coordinated efforts to improve the status of sanitation and reduce the number of slumdwellers have failed. While progress has been made in proportional terms, in absolute numbers the number of slumdwellers has only risen during the last 10 years (UN-HABITAT, 2010); similarly the number of people without access to improved sanitation dropped significantly as a proportion of the whole, but only slightly in absolute terms during the past 20 years (JMP, 2012). The achievements made have been outnumbered by the population rise over the last 20 years. This is not the first time this happens, the same occurred during a previous global effort to improve sanitation in the 'International Drinking Water Supply and Sanitation Decade' (1980-1990). While many of the implementing agencies argue that policy has failed because of a lack of funding or fragile institutional support (WHO, 1992), I also wonder whether it is wise to continue pursuing the same path. I believe in looking at what the policies try to achieve in the first place and analyse whether this is indeed a desired course of action. If the understanding of sanitation as formulated in these UN documents is completely different from those lacking access to sanitation, one may wonder whether the formulated policies will be effective in any way (Joshi et al., 2011).

Furthermore, I realised that my knowledge about 'slums' and 'sanitation' is derived from UN reports and other literature, and the same must apply to many others. Many, among which undoubtedly also policymakers, only 'know' these topics as described in generalist literature. The knowledge of those in the higher echelons of society, be it at the international or national level, most probably does not arise from the experience of living in a slum or having lack of access to 'proper' sanitation. This automatically led me to the question: what is a slum?; and what is sanitation? Almost certainly these words have different meanings for different people, but can they also 'be' different things?

1.3.1 ONTOLOGIES

This thesis therefore analyses the current situation in sanitation in the slums of Mumbai, not only by acknowledging that different points of view exist, but also by stating that these perspectives materialise into different 'states of being' or ontologies, through policy and daily practices. I argue that, for the topic of this thesis research, this applies as much to the concept of 'slum' as to that of 'sanitation'. To do so, I will demonstrate that there are multiple ways that these concepts 'get done' or enacted (Mol, 2002). Through different discourses and material manifestations a mosaic emerges of different 'sanitations' and 'slums'. I argue that these different realities co-occur by being inconsiderate of each other's existence, as if occupying different dimensions.

As a main point of departure to arrive at these different ontologies, I have chosen to problematise or demystify the concepts of 'slum' and 'sanitation'. Both concepts are value laden as well as prescriptive, albeit in opposing terms. Sanitation reflects a desired state which is healthy, clean, and modern; while the slum is an undesired

entity which is filthy, unhealthy, non-modern and dangerous. These concepts are therefore not only subjective in what they attempt to describe, but also prescribe the direction that is to be taken; namely to move towards/away from the desired/undesired state. These normative concepts are typically not only deployed to describe a bio-physical entity, but also the people that live in such an environment; be it as victims or culprits of the undesired state in which they reside.

For such normative concepts to 'stick', the descriptions and values that they propagate must be produced over and over again; this leads us into the realm of knowledge and also performance. For the idea of a slum (or lack of sanitation) to be something familiar to all those that have never been inside one (or experienced it) an active process of disseminating texts, pictures and statistics is needed. Facts like "2,5 billion people do not have access to sanitation" are repeated over and over again until they become a commonality. If people and governments on one side of the world are willing to donate money so that the sanitary conditions are improved in another part of the world, the 'performance' must be a convincing one. I use the verb 'to perform' not to argue that there is a big scam going on, but to state that only if there is a cohesive array of images, stories and documents that a person in one country can become familiarised with a topic so distant from his/her direct environment. As soon as there is dissonance in what the desired state ought to be, or who the victims and the culprits are, few governments or private donors would be willing to spend money on such a cause.

However, this is not just a question of socially marketing a problem and a subsequent policy. I believe that as this takes place through repetitive performance, an object is shaped. This may be merely a discursive object, but nonetheless very real. These discursive objects inspire actions, for example in the form of sanitation policies, new toilet inventions etc.; the discursive object is then 'enacted', it starts to materialise into a set of actions and tangible objects. In other words, a dominant epistemology becomes a dominant ontology. The task of this thesis is to untangle this web of material objects, policies and underlying ideas in order to understand that 1) different 'sanitations' and 'slums' are created; and 2) some of these are more dominant than others. These multiple ontologies will create space for a form of ontological politics which would hopefully allow for different intervention strategies to be considered when engaging with slums and sanitation.

1.3.2 POLITICAL SOCIETY

However, my scope here is not only to demonstrate that different objects exist. Despite my attraction to philosophical arguments, I am also shaped by an engineering mind-set of 'wanting to do something'; to resolve a problem. So despite that I understand that a problem can be defined into multiple ways which will lead to different 'solutions', one of my objectives is to contribute to change. This is a particularly difficult task, especially when operating in a context that is completely unfamiliar, as my experience in Mumbai's slums was.

In order to understand the perspective of those living in the slums, I chose to work with an NGO named YUVA (Youth for Unity and Voluntary Action) that tries to bring about change in the lives of the Mumbai's marginalised and oppressed by empowering these from a "human rights perspective". I worked with YUVA to tackle the issue of sanitation in a small slum settlement of Mumbai. As part of a larger project, (*Umeed*; literally meaning "hope") with three other NGOs we worked to improve the toilet, drainage and garbage condition in a settlement of approximately 3000 people. To do so we set out on a study which combined action and research on the area; this process entailed various meetings with bureaucrats, politicians and of course also intense interaction with the community's residents.

While taking part in this process, I tried to understand the various policies and political mechanisms that shape the lives of slum dwellers. One insight that has been particularly useful for this, is the concept of 'political society' (Chatterjee, 2004; Chatterjee, 2011). This is described as the set of para-legal arrangements between a group of people that operate outside the strict realms of the law and the state (ibid). In India there are many people who carry out 'illegal' professions, or reside in 'illegal' slums. The authorities deal with these people in a schizophrenic way: on one side they tolerate them because of their numbers and voting power, while on the

other side they condemn and combat them publicly. For example, my flatmates in Mumbai ran an 'informal' food stand on a market; to be able to do so, they had to pay 'protection' money to various people, among which also the official authorities. However, 'clean up' campaigns staged in front of the press also regularly took place, to show the public that the city authorities are tackling the problem of unlicensed market vendors. The same officials that carried out these campaigns warned the market sellers of these events before they happened. The same applies with slums: they cannot be wished away, the numbers and the vested interests are simply too big.

To merely call this corruption leaves little room for understanding the mechanisms and the effects that they produce. Chatterjee argues that because these people reside outside what is formal or legal, they have no access to civil society to negotiate in a legally recognised way for goods and services from the state. However, because of their voting power they can still negotiate in another field, one that he calls 'political society' (ibid). To receive benefits from the state when one's status is illegal is not merely a question of paying the right person, but entails a delicate set of negotiations. Through the work with YUVA and the residents of the settlement, I have noticed first-hand how delivery of sanitation services is a very tedious matter.

The concept of political society not only provides a detailed understanding of the Indian society, it also gives an insight on how the existence of slums is recursively shaped. This clearly resonates with notions of 'performance' as group identities are actively formed in order to become targets for appropriate policies. More interestingly, the notion of political society allows for a different narrative to be developed. One in which slum dwellers are not solely victims, but also active participants in a process, the outcome of which depends on delicate negotiations. This permits not only to understand the situation of sanitation in slums more accurately, but also to relate to problems of housing and environmental services in general, from an alternative perspective. Although Chatterjee only remains in the realm of critique, I believe that these understandings create space for external parties to consider alternate, I believe more fitting, options when intervening in a slum area.

1.4 ABOUT THIS THESIS

This thesis research is the culmination of my interest for the last three to four years; as such it also marks the last stretch of my education at Wageningen University. My interest in sanitation started during my bachelor course in Land- and Water management, when considering the practice of wastewater irrigation; the use of water contaminated with excrements and all the possible bacteria and other pathogens these might contain to irrigate crops which are often meant for human consumption. The challenge of minimising the health risks for farmers and consumers without losing the benefits that wastewater can have for a poor (peri-) urban farmer seemed like a daunting task. After various courses where I explored this and developed basic relevant knowledge, such as basic microbiology, I eventually went to Peru for five months to investigate these practices in the field. There it struck me that, while I was focussing on the safe reuse of wastewater, a lot of families did not even have access to basic sanitary facilities. Therefore when writing my BSc thesis, I decided that sanitation should be my scope of analysis; in this BSc thesis I analysed the problem of operation and maintenance of slum sanitation by comparing three approaches in the provision of sanitation (Galli, 2011).

While visiting the 2011 Stockholm World Water Week I realised that there are engineers proposing solutions to the sanitation problem without considering the concerns of the people who are supposed to use these and there are advocacy NGOs that have programmes in place with little focus on technology. At a visit to the World Water Forum in Marseille (2012) I witnessed how a 'show-slum' was built under a big tent in the parking lot where the venue was held. The name of this pavilion was "From Planet of Slums to Planet of Solutions[3]". Inside the 'slum' various shacks were built and water 'solutions' were presented to illustrate them in their context. It

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3 The overarching theme of the 2012 World Water Forum, held in Marseille, France, was "Time for Solutions".

struck me at the time how a slum was portrayed by rebuilding some shacks and playing noises in the background. Without any people and any human interactions it seemed to me that this was nothing more than an empty shell. The displayed 'solutions', much in line with the rest of the World Water Forum, were technologies produced by multinational companies. This observation only reinforced my idea of moving to a slum to carry out my thesis research. The idea had already been present in my head for a while at the time, partly informed by notions of participatory research and "immersions" (Birch et al., 2007), partly out of a strange fascination for huge cities and slums.

This thesis will be submitted in partial fulfilment of an master's degree (MSc) in International Land- and Water management, an interdisciplinary course that has taught me how irrigation (and for that matter water management in general) is a socio-technical phenomenon. This insight has been shaped by the students and staff of the Irrigation and Water Engineering (IWE) group of the Wageningen University since the 1980s. In this period the group has transformed itself and the courses they teach; from seeing irrigation from a narrow agronomy and civil engineering perspective, it has evolved into a broader interdisciplinary analysis in which irrigation is seen as a simultaneously technical and social phenomenon (Bolding, 2004 p14-17; Zwarteveen, 2006 p39-41). Analysing this simultaneity proved impossible by taking a multi-disciplinary approach, that is considering the different relevant dimensions (e.g. technical, economic, social, and ecological) separately and attempt to bring these together; the different conceptual languages and incompatible data-sets only resulted in reports and documents divided in separate, discipline-oriented sections (ibid). As a result, new conceptual frameworks were developed that tried to capture this simultaneity by analysing the technical and the social dimensions as inter-related features of an irrigation system. A starting point for this new conceptual framework was the social construction of technology (SCOT) school (for example Bijker, 1997). Inspired on this SCOT school, a major contribution to this framework has been the work of former IWE staff member Peter Mollinga who states that irrigation systems are *socially constructed*; have *social requirements for use*; and give shape to *social effects*; he also distinguishes three forms of 'water control' that operate at the same time: the *technical*, *managerial* and *socio-economic and political* (Mollinga, 2003). The conceptual framework used and taught by the IWE group has been further expanded among others with insights from the actor-network theory (ANT) by Alex Bolding (2004); the use of feminist theory by Margreet Zwarteveen (2006); and the work of Foucault by Rutgerd Boelens (2008).

1.4.1 OBJECTIVES

The insights gained during this stimulating master's course have provided me the critical mindset that I have used during this thesis research. Of course as times change, new challenges and opportunities present themselves. This thesis therefore uses the foundations of what I have been taught during this master's programme to make a conceptual and two contextual moves. At the contextual level, this research is an attempt to bring the topic of urban water cycles, more specifically the issue of sanitation, under the attention of water managers. In a way this reflects the same shift that has characterised the evolution of the IWE group, as sanitation has remained for long a matter of concern of environmental engineers and public health officials; although it has since drawn the attention of sociologists and anthropologists (e.g. Van Der Geest, 1998; van Vliet et al., 2010; Joshi et al., 2011) this has not yet materialised in a 'socio-technical approach'.

At the conceptual level, this thesis is an attempt to engage with what Law calls the post-1995 "diaspora" of Actor Network Theory (Law, 2009); more specifically the thesis engages with the concepts of 'enactment' and 'multiplicities' (Mol, 2002). Following Mol (ibid), an object (her analysis relates to the disease atherosclerosis) does not exist in and off itself but only through multiple situated practices; these are not just different perspectives on the same object, as each practice generates its own material reality. The different realities that emerge give shape to a multiplicity of the object, as they need not necessarily coordinate into one. It is this thesis' attempt to engage in a similar way with the objects of slums and sanitation. However, this thesis will adopt a slightly different emphasis than Mol's work, by focusing to a great extent on different ways of 'knowing an object' (i.e. epistemologies) rather than mainly analysing different practices. Through the use of UN

documents, NGO websites and reports, academic articles, newspaper clippings, novels and documentaries I hope to trace these different knowledges about slums and sanitation and juxtapose them to my own field experiences and observations. As will be discussed further in chapter 2, it is questionable whether it is even possible to separate 'knowledge' from 'being'. I will argue that different manifestations come about from the interrelation of different ways of 'knowing' and 'doing' an object. In turn, these different enactments generate certain effects, as they shape "collateral realities" (Law, 2011).

A second conceptual move is to engage with Chatterjee's 'political society' (2004) in order to better understand post-colonial democracy as it exists in India. The process of obtaining environmental services in a slum is a very difficult and tedious one due to the illegal status of the settlements. In fact, I will argue that this theory allows for an alternative way of doing (and knowing) a slum area (and the services provided to this). Understanding the difficulties that the inhabitants face to gain access to these services and the networks and mechanisms that they deploy in order to improve their situation, also provides insights on how to improve the external efforts meant to ameliorate the lives of the residents of such areas.

Another objective of this research is to combine research with action and in particular with activism. As it will become clear in the following chapters, in Mumbai the relation between authorities and those residing in slums is very strained; the debate is extremely polarised, resulting in the fact that any action in this field results in a political statement. It has been my intention from the start to acknowledge and embrace this political relevance. This led me to engage and work with an NGO that is actively fighting for the rights of those that are marginalised.

1.4.2 THE RESEARCH AREA

As this thesis attempts to describe various ontologies of sanitation and slums it relies to a great extent on material from all over the world. A large part of this material is from India and a large part thereof is based on Mumbai. In Mumbai I made use of the vast amount of literature available on slums, mainly on Dharavi, interviews, newspaper clippings and also used the vast amounts of 'casual conversations' I had during the five months of the research period to understand the situation from multiple perspectives. However, the research I carried out with YUVA had a clear geographical demarcation.

FIGURE 7: THE RESEARCH AREA, WITH THE WHITE ROOFS (SOURCE GOOGLE MAPS)

The research took place in a small settlement to the East of Bandra railway station. Bandra is often referred to as the 'queen of the suburbs', however this only applies to the luxury apartments on the Westside of Bandra, where Bollywood movie-stars live in sea facing buildings. There is also a large Christian community in Bandra, originating from the Portuguese settlers. In east Bandra, to the east of the Western Expressway lies the prestigious new Bandra-Kurla complex, an area of office buildings and gated residential flats; the property prices here even surpass those of South Mumbai. However, in the area around Bandra station many slums can be found. The research site, Garib Nagar (literally meaning "poor hamlet"), was in one of these slums, just to the east of the suburban railway station. It is a small area, of around 0.96 hectare, which is the home to approximately 3,000 people.

The area was chosen as it was one of the three areas in which YUVA was working as part of the

Umeed project. At the start of the study it lacked sanitary facilities as a large fire had destroyed the whole area just one year before. Houses had returned, but the communal toilet block still remained charred.

1.4.3 RESEARCH QUESTIONS

The question that forms the backbone of this thesis is the following:

"What are the different enactments of sanitation and slums, how are these performed in Garib Nagar settlement of Mumbai and what are the effects of these enactments?"

1.5 STRUCTURE OF THE THESIS

This thesis is not an exhaustive collection of all the possible varieties and features that constitute slums and sanitation. Rather it is the result of my exploration from being informed on the subjects mainly through reports of international agencies and global NGOs, to witnessing the events as they unfold 'in the field' and actually participating in a project that attempted to bring about change in one of Mumbai's slum communities. It will not result in clear-cut recommendations that can be copy-pasted into policy documents. However, the presented material will provide insights to the readers on some of the challenges of providing environmental services in slum areas. It will also take a deeper look into aspects of democracy, citizenship and illegality and how these concepts manifest themselves in the presence (or absence) of basic amenities. Methodologically, this thesis will provide a reflective example on how activism and research can go hand-in-hand, despite tensions between the two fields.

The second chapter will take a closer look into the used methodology and the concepts that guided this thesis. On the conceptual side, the idea of 'multiplicities' and 'enactment' (Mol, 2002) will be further elaborated as well as Chatterjee's notion of 'political society' (2004). The methodology will also be explained in detail, this consists of the activities carried out as an individual and the collaborative study with YUVA. My collaboration with this organisation and the implications that arise from combining activism and research will also be specified further.

Chapter three provides a first multiplicity of the various enactments of 'slums', as seen from 'the outside'. This runs parallel to my voyage from understanding the phenomenon at a global level to gaining a deeper understanding 'immersed' in the local context. It will describe the various discourses around the word 'slum', as well as their manifestations in policy and their spatial materialisation in Mumbai.

An intermezzo on Dharavi will then provide an example on how this 'outside' enactment of a slum may clash with an 'inside' enactment of a neighbourhood.

Chapter four continues to provide enactments of a slum. This chapter will solely refer to the research area of Garib Nagar. Two distinct enactments shall be presented herein, that of the NGO project in which I collaborated with and that of 'political society', a parallel system of service provision and therefore also of citizenship. This chapter will also make clear how this political society is facilitated by the municipal bureaucracy; by creating a material and discursive enactment of 'illegality', the slum is formally denied access to public services.

The fifth chapter illustrates a multiplicity of 'sanitation'. By defining and analysing the discourse of how this concept is used, as well as scrutinising the material manifestations of the proposed 'solutions', a deeper understanding shall be gained on how sanitation (for slums) is enacted completely different around the world. The various enactments that will be presented are related to the global level of international institutions, the Indian level and to the neighbourhood level of Garib Nagar.

Chapter six presents a detailed ethnography of the attempts to obtain sanitary services in the form of a communal toilet block in an 'illegal' settlement in Mumbai. This will serve as an example to better understand

how the 'slum' and 'sanitation' come together; it will make even clearer how the enactment of the community's residents are very distinct to enactments of sanitation presented at the level of international institutions. The para-legal negotiations that take place between the community and the authorities and the complicated mechanisms through which these negotiations are enacted will illustrate the concept of 'political society' even further.

The seventh chapter will provide a discussion and conclusion to the thesis. This will also entail a reflection on the chosen conceptual approach as well the methodology; in particular I will discuss my collaboration with an NGO struggling for the rights of slum dwellers and the challenges (and opportunities) of combining research and activism. It goes without saying that the main findings of the research shall also be summarised and followed by a reflection of these imply.

CHAPTER 2: REFLECTIONS ON CONCEPTS, METHODOLOGY AND POSITIONING OF THE STUDY

This chapter aims to explain the overarching concepts and methodology that formed the outline for this study. It is worthwhile doing so as this thesis research is outside of the classical scope of MIL dissertations, both topically and conceptually.

This chapter will not only describe the pursued methodology and its implications, but it will also help to position the study in wider debates. First, the study is an attempt to use the 'socio-technical' approach of watermanagement (as explained in the first chapter) outside the realm of agriculture and rural water disputes and to bring it to the city where watermanagement is (thought to be) controlled by civil engineers and public health officials[4]. Second, and more important in my opinion, this chapter aims to answer the question that I have often asked myself: "Is it still 'science', or at least 'scientific' what I'm doing here?" To answer this question, in this chapter I will discuss the topic of participatory research, social constructivism and political positioning as I have understood it and as I have practised it throughout my thesis research. These choices have of course several implications, which will also be discussed.

The chapter is composed as follows: in the first section I will describe some overarching concepts and methodological 'tools' that have shaped the way I look at the world and therefore also this research. I will then continue by positioning myself and my research politically and argue why I believe that this is a necessary move. The concluding section provides a description and reflection on the chosen methodology on a more day-to-day basis. What might be seen as an omittance is the lack of discussion of the discursive concepts such as 'slum' and 'sanitation'; this is a deliberate choice as they will be discussed in detail in the following chapters.

2.1 CONCEPTUAL FRAMEWORK

In this section I will describe the two main concepts that form the theoretical skeleton of this thesis. Two main concepts will be discussed here: Mol's 'multiple enactments' (Mol, 2002) and Chatterjee's 'political society' (Chatterjee, 2004).

This thesis research was set up by taking complexity as a starting point. I remember when writing my proposal I was tempted to look up a definition for the word 'slum'. Quickly, I realised that there is not one definition, much like there is not one slum. I was challenged to look beyond multiple perspectives and focus on multiple realities. One approach that allowed me to take this ontological complexity into account is the actor-network theory (ANT) and mainly its "post-1995 diaspora" (Law, 2009). In the first sub-section I will explain my understanding of this body of work and describe how it has helped me to understand the issue at hand. To do so I will use texts from ANT scholars as well as examples from popular culture and visual representations as I envision them.

Throughout my master's course in watermanagement I have learned how 'water problems' are related to (if not a reflection of) socio-political circumstances of the area where the particular problem arises. This implies that to understand any water-related problem, one must understand the local socio-political situation. To understand Indian society as well as the position of slums and slumdwellers in it, I have used the work of Partha Chatterjee; in particular his concept of 'political society'. The second sub-section below will go into detail into this work, explaining why it is useful in this context and what the implications are of this political theory.

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4   In chapter 3 and 5, I will actually argue how water control at the 'ground level' of Mumbai is actually not in the hands of engineer, but rather in mediated through popular politics.

2.1.1 The "Diaspora" of Actor-Network Theory

Actor-network theory (ANT), unlike the name suggests, is not a theory in the prescriptive sense but it is rather a descriptive explanatory tool (Law, 2009). This approach makes no distinction between the social and natural worlds, but speaks of heterogeneous means. In Bruno Latour's words: *"The ozone hole is too social and too narrated to be truly natural; the strategy of industrial firms and heads of state is too full of chemical reactions to be reduced to power and interest; the discourse of the ecosphere is too real and too social to boil to meaning effects. Is it our fault if the networks are simultaneously real, like nature, narrated, like discourse and collective, like society?"* (Latour, 1993; p6 emphasis in original) John Law states this even clearer and says: *"(…) the social is nothing other than patterned networks of heterogeneous materials."* (Law, 1992; p381, emphasis in original) and *"if these materials were to disappear then so too would what we sometimes call the social order. Actor-network theory says, then, that order is an effect generated by heterogeneous means."* (ibid; p382, emphasis in original). In other words, the social and the natural are embedded in each other and sustained by webs of relations. Despite this abstract appearance, ANT is actually grounded in empirical case studies[5] for it does not explain "why" things happen, but rather "how" these webs of relations are formed or not (Law, 2009). Thus the ANT approach describes how order is generated as an effect of these relations between all kinds of actors, be it human or non-human, "nature" or ideas, machines or organisations and so on and so forth (ibid). Stability of these webs is not considered as a mere side-effect but it is actively achieved and sustained through material, discursive and strategic means at the same time (ibid).

It is of course tempting to view ANT as an apolitical tool by which all becomes relative. If one merely describes networks, one after the other, this might be the case, But here John Law reassures us that and/or misrepresented to *"actor-network theory is all about power--power as a (concealed or misrepresented) effect, rather than power as a set of causes."* (Law, 1992; p387 emphasis in original). Thus power is explained by exposing the networks, how they are consciously generated and through which material, discursive and strategic means they are sustained (Law, 2009).

"So it is that actor-network theory analyses and demystifies. It demystifies the power of the powerful. It says that, in the last instance, there is no difference in kind, no great divide, between the powerful and the wretched. But then it says that there is no such thing as the last instance. And since there is no last instance, in practice there are real differences between the powerful and the wretched, differences in the methods and materials that they deploy to generate themselves . Our task is to study these materials and methods, to understand how they realize themselves, and to note that it could and often should be otherwise."(Law, 1992; p390 emphasis in original).

Enactments, Multiplicity and Collateral Realities

Two aspects of what John Law calls the 'post-1995 ANT diaspora' are the concepts of enactment and multiplicities. The first refers to the idea that realities get done', are 'performed' or 'enacted' through a set of practices (Law, 2011). To create a 'reality', however precarious it might be, a whole set of webs of heterogeneous material and social practices is needed (Law, 2009). This means that by studying practices one can describe different ontologies, of how various realities 'get done'.

This leads to the second concept of interest, namely that of 'multiplicity'. Annemarie Mol (2002) describes how a disease is enacted in different ways and thereby creating different material realities. These are not just different perspectives on the same disease, but varying ontologies. Thus she describes various co-existing actor-networks on the same disease that may come together temporarily to form a single reality, but can also be held apart and operate separately from each other. (Law, 2009, Mol, 2002)

These two concepts allow on one the hand to move beyond the idea of paradigms and the inherent assumption that a new one will overturn the old (Kuhn, 1962); rather, multiplicity argues that varying representations of

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[5]Brief descriptions and examples of these case studies can be found in Law, 2009

reality can co-exist at the same time without necessarily being in conflict with one another, even though they theoretically might exclude each other (Mol, 2002). Enactment of reality also moves beyond social constructivism stating that there is no central character that constructs; if powerful individuals emerge it is an effect of functioning material-semiotic networks, not a cause of it (Law, 2009). Multiplicity also allows to relate to the idea of 'boundary concepts' (Mollinga, 2008), realising that realities can come together under a single denominator. However, it goes beyond that and realises that differences between practices are not merely disciplinary or epistemological in form; it states that they are in fact different material and socially heterogeneous realities. In fact this 'hybrid' form excludes the distinction between epistemology and ontology. As stated by Swyngedouw "the existence of hybrids […] is a constant reminder and proof of the impossibility of separating 'representation' from 'being', the sign from the signified, the discursive from the material."(Swyngedouw, 2004) p14

A further point of interest is that each enactment creates certain (unintended) effects. These effects which are in turn also material-semiotic come forth form the "collateral realities" (Law, 2011); these are 'side-enactments' that are shaped along the way as an object is 'being done'. As I will discuss the topic of sanitation in slums of Mumbai, I will create many collateral realities. I will 'do' Mumbai, India, the UN etc. all in a certain way because that serves to bring my main point across. Often these collateral realities may seem irrelevant, but they may also generate unintended effects. It is the task of this research to find out what the effects are of different enactments of slum and sanitation.

PRACTICAL MANIFESTATIONS
So what do these concepts imply and how have they shaped the way I look at the world, especially during my thesis research on slum sanitation in Mumbai? To explain this, I would like to take an unconventional side step and relate to a TV show named "The Wire". This show, over the course of five seasons, relates to the drug problem in the inner city of Baltimore, USA. It is shown how drug dealers operate and how they are dependent on good drugs, a reliable supply of these, a vast supply of street soldiers in order to keep their dominant position in the market. It also shows how the police force is ineffective in combatting crime due to bureaucratic procedures, internal power struggles and the pressure to provide positive measurable results to politicians. These in turn, need statistics to relate to voters and the media and are under the constant pressure of budget constraints. Meanwhile, the school system, also having to provide the statistics that government so dearly likes, is losing its children to the streets. The media, having to sell their story daily, plays its part by writing only on sensational issues, thereby keeping attention away from the daily drama that unfolds in the city. This in a way, albeit in the form of a television show, is actor network theory in practice. It shows how order is created, challenged and reinforced; it shows how the drug problem is not only taking place through dealers and junkies in the streets, but also takes form in police stations, at city hall and in real estate markets; it shows how reality 'gets done' by reducing a complex problem to a series of statistics, and how these in turn form their own material realities.

This side step explains in general form, what my approach was during my thesis research in Mumbai. For any study to be practical some degree of delineation would be required, however I would also have to keep an 'open view' as much as possible. In any case, I would have to create my own enactment of slum sanitation. I chose to not limit the research to the slum where I worked over the course of 4 months, but also to include the conversations that I had when chatting out with middle-class Mumbaikers, the visits to various official city government offices and the vast loads of international and national policy documents and NGO publications that write about slum sanitation. It is not in my scope to explain the whole city of Mumbai, with its 20 million inhabitants in this thesis. But, like the drug problem in Baltimore cannot be explained just by relating to the street corners, or Pasteur's vaccine was not only devised in his lab (Latour, 1993a), it is necessary to look beyond the boundaries of the slum, the city and even the country to understand the different realities that are enacted on the topic of slum sanitation. Second, this thesis research, upholding one of the founding principles of ANT is socio-technical of nature. It considers toilet designs and drainage canals as well as discourses, land

titles, religion, politics, gender, caste, class and so on and so forth. It regards all these aspect not as loose contributing factors, but rather as bits and pieces which create networks and contribute to the stability of this web; that is the apparent status quo of poor sanitation services for the slums of Mumbai. Third, the use of the metaphor of "the Wire" is illustrative to my approach. Although this research is intended to be a serious study that adheres to academic standards of excellence, the data used will not only draw from peer-reviewed academic journals. This work is also largely based on my personal observations, non-academic literature, conversations with people in all circles and areas of Mumbai and newspaper clippings from the city. I believe that topics of omnipresence in a city such as Mumbai, such as sanitation and slums, have a clear popular character. Therefore, it should be avoided, to a debate exclusively in academic circles. Actually, as I hope to demonstrate in the following chapters, this demarcation of discussing these topics, has led to the rise of separate ontologies with their own material implications. I believe that if change is to be brought about, these 'realities' should be in conversation with each other.

2.1.2 POLITICAL SOCIETY

The second conceptual line that will be set out throughout this thesis derives from the "Politics of the Governed" (Chatterjee, 2004); in particular the concept of 'political society'. In this theoretical work, Chatterjee argues that classic political theory is based on Western democracies; however, these fail to explain the processes which unfold in "most of the world". Reading this book while being in India, provided me with fantastic insights in understanding the very same processes that took place during my research.

India is a country where inequalities exist at many different levels that operate contemporaneously; this makes it extremely difficult for an outsider to understand which principles are guiding which processes. When class, caste, religion, gender, ethnicity, age and other factors all play a role in shaping society any simple Marxist, feminist or caste-sensitive analysis (just to name a few) will always have it shortcomings. In Mumbai, I often found myself describing the phenomenon of urban poverty in such a rich city using Marxist analysis; explaining the backward position of women in Indian society using a feminist perspective; trying to grasp the caste issue which was new to me; and understanding the deep seeded conflict between Hindus and Muslims as well as the racially divisive politics between the people of Maharashtra and those of Bihar and Uttar Pradesh. All these levels of inequality and conflicts make a single clear analysis very troublesome and most importantly they didn't provide answers to my main question as to why things are the way that they are. That is, how is it possible that these injustices continue in a city that is ruled by democratic processes; for example, how can more than half the people live in slums on 6% of the city's area if they are all allowed to vote. How is it possible that they have not managed to find a common voice in order to change their situation?

It is exactly to these last questions that I found answers in Chatterjee's "Politics of The Governed", as he reflects on "popular politics in most of the world". Chatterjee makes a crucial distinction between populations and citizens. Populations are addressed through policies or "technologies of governmentality", for this it is necessary to have group classifications along caste, class, gender (etc.) lines. Populations are constructs of empirical categories gained through ethnographic studies, dividing people in useful social or economic groups; therefore a population is inherently heterogeneous. Citizens on the other hand are equal and homogeneous in the construct of the nation state, as "[…] citizenship, which carries the moral connotation of sharing in the sovereignty of the state and hence of claiming rights in relation to the state […] (p136).

This distinction is crucial because a large section of the urban poor exist as a category, but not as (equal) citizens. If those that violate the law by squatting on public or private land were to be given any legitimacy by the government it would threaten the whole system of legal property along which the state is founded. These people, and here Chatterjee uses Sen's (for example see Sen, 1981) concepts, do not have *rights* but *entitlements* to their land. Treating slumdwellers as proper citizens is therefore ruled out as an option; however, there are political and social reasons of treating them as a population and extending policies and welfare programmes to them. Chatterjee's conclusion is that these people do not organise and form under civil

society, this domain is only reserved to citizens with rightful claims towards the state. He argues that, these citizens, the informal workers, the squatters, the hawkers etc. form under *political society.* This is a field of negotiation between these groups and the state through a whole set of paralegal agreements which are recognized by the state. If these groups are to be targeted as a population, a tool of governmentality used by authorities, then they must organise as such in order to claim the benefits of these policies. Chatterjee argues that these policies and schemes, which are temporary and varying in nature, are not distributed as charity but are actively negotiated in this field he calls *political society*. In his latest book Chatterjee argues that these benefits distributed by the state are in fact nothing less than compensations to losses caused by primary accumulation (Chatterjee, 2011).

TABLE 2: ANTAGONISMS OF CIVIL AND POLITICAL SOCIETY (CHATTERJEE, 2011, CHATTERJEE, 2004)

	Civil society	**Political society**
People grouped as	Homogenous nation	Heterogeneous social
Subjects	Citizens	Populations
Mechanisms	Legal	Para-legal
Rule of law based on	Equality/ equal citizenship	Exceptions/ differentiated citizenship
Claims towards state based on	Rights	Entitlements
Social transformation through	Modernity	Democracy
Use of violence	State	Group/Political party
Dominance	Gender neutral (in principle)	Male oriented

The concept of political society explains the phenomenon of 'vote-bank politics' better than the classic notion of patron-client relationship between a politician and a slum. It makes clear that people living in a slum are not just tolerated by the state and passive recipients of government schemes. Rather, it states that all these are actually the outcomes of careful negotiations between the authorities and organised groups within these communities. However, as Chatterjee makes very clear, these groups are not inherently progressive or peaceful. These groups consist of the powerful within these elements of informal, illegal society. They are often dominated by powerful male, conservative forces that also make use of violence as a political tool to mobilise support and extract benefits (Chatterjee, 2004, Desai, 1995).

As Desai explains, these groups that operate in what we can now call political society, are not inherently political in nature; they may as well originate from religious backgrounds, such as *mandals* (groups that organise the worship of a deity in a public *pooja*). These groups may or may not be the natural leaders of a community, but by negotiating with a politician or with authorities these gain a certain power; they can become so-called 'gatekeepers'. In turn these groups also become necessary tools of the authorities and politicians to relate to and control an entire community. It is these groups that negotiate with politicians during election time for basic services such as water in exchange for votes; it is also these groups that go door to door in their community telling people what to vote.

It now becomes clear how it is possible that large parts of society which cannot be considered proper citizens because of their existence in the informal sphere are shut off from civil society and its material manifestation,

such as legal water and sanitation services. It also becomes clear that these sections of society nonetheless organise in another field, that of political society, in which they negotiate and struggle for these very same services. Authorities realise that they cannot recognise these people as citizens without jeopardising the system of legal property, income tax and use of public space; however they also know that these people cannot be ignored without creating social unrest and upheaval. Political society then becomes a field through which these services can be extended to these sections of society without challenging the status quo. Of course, this field of political society should not be romanticised, it is a field ruled by corruption, patriarchy, violence and vested interests.

2.2 POSITIONING OF STUDY

This study is however not only meant to describe the sanitation situation in the slums of Mumbai and the networks that have led to the current situation. As I have hinted here above I believe that a study on ontologies is political in nature, as it depicts various realities and tells us that things are not always fixed in a certain order but that these orders are shaped and can therefore be altered. By questioning the current order, whatever it may be, and demystifying the materials and methods through which this order is created, this study sets out to criticise and polemicize. This will contrast the classic view of 'science' as a neutral undertaking that sets out to objectively represent (a single) reality. This study also struggles between the tensions that arise between what can be known 'scientifically' through gathering data following a certain methodology and knowledge that is 'situated' (Haraway, 1988). Furthermore, during the course of my master's programme I have understood how science is not impartial, nor objective; I also believe that a scientist is foremost human being with all his/her traits and flaws. I could have chosen to describe the injustices[6] described in this thesis as neutral facts by taking the position of an observer, but instead I have chosen to get actively involved in an effort to bring about change. I believe that neither position is 'more scientific' than the other; an observer will never be neutral, much like an actor. I believe that the added academic value lies in being able to actively reflect on the actions or observations, with the use of theoretical work. However, I also wish to make clear that if I am to use the space given in academic institutions to ventilate my political beliefs, this should be stated clearly and not only something that is read between the lines. Therefore this section will explain my political views that have led to this research. It will also clarify my position on participatory research, cross-disciplinarity and social constructivism.

2.2.1 POLITICAL

I believe that there is something fundamentally wrong if more than half of the inhabitants of a city live on 6% of the land without proper facilities and under the constant threat of eviction. My position is that there is something very wrong with this which should be changed. I also realise that this would imply tough political choices which will require sacrifices from others in society, such as those that own the land on which slums are located. As I will demonstrate in the following chapters, a strong anti-slumdwellers discourse is present amongst the higher classes and the city's officials. With these antagonistic discourses it is, in my view, untenable not to choose sides. Not doing so would detach the researcher from his/her views as a human being, something that is impossible without perhaps some help from a schizophrenic disorder. However as I researcher, I am well aware that I should always be critical, even of the side I support. Furthermore, I also realise that as a student from another country my possibilities to bring about change are limited. This thesis research, albeit informed by clear political motives, is therefore an attempt to understand the current situation and show possible alternatives. Furthermore, during my field research I have closely collaborated with an organisation with clear political motives, and my thesis is my contribution to their struggle.

On a concrete level, I can state that the main factor leading to the fact of conducting a study that is inherently political of nature was the choice of organisation I cooperated with when carrying out my thesis research. The Mumbai branch of the organisation "Youth for Unity and Voluntary Action" (YUVA) is one that sets out to

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[6] Intended

empower the oppressed and marginalised. It does so from a human rights perspective and in a holistic manner. The first aspect means that "poverty is seen as a violation of human rights with recognition that it is structural and that there are social causes that create and perpetuate the impoverishment of communities and specific groups" (YUVA, 2012a). As I have experienced first-hand YUVA is not afraid of filing its own public interest litigations (PIL) in High Court against the city and organising and participating in popular agitations in the fight for rights of the marginalised. Second, YUVA Mumbai is tackling causes and effects of urban poverty in a broad manner and at the same time. This means that there are internal teams working on child rights, women's issues, education, right to water (and now also sanitation), housing etc. Furthermore they participate in a large number of coalitions with other organisations, NGOs and individuals on topics such as right to water, anti-eviction movement, right to pee campaign, review of Mumbai's development plan and anti-privatisation campaigns. It was made clear to me from the start that all these issues need to be tackled simultaneously if the organisation is to be true to its pro-poor stance. Choosing to work with this organisation was partly influenced by chance, through contacts of my supervisor; however, the cooperation was nonetheless carefully deliberated upon, probably on both sides.

My view from the start of this research was this study should not only reflect my political and topical interest, but it should also be useful to the inhabitants and social workers in the research area. However, as one ventures in the boundary between science and activism it is necessary to realise that conflicts may arise between these two fields. It has been my credo to make my position clear from the start so that these conflicts can be dealt with through mutual agreement between the concerned parties during the research. As a researcher, if one ventures in the realm of activism it is necessary to realise that the questions asked may not always be of interest to the activists, and thus a certain degree of flexibility from both sides may be required. Additionally, activists are typically less single-topic focused than academics, they tackle a variety of issues at the same time. This may mean that other tasks have to be included in one's work. Further, daily activities with activists were guided by strategic planning rather than academic levels of analysis; this latter aspect was something that I carried out at a personal level during my self-reflexive moments, usually in the evenings. Also, embarking on politically sensitive work will lead to risks of getting caught up in party politics; this is something that I have tried to avoid, even when working with politicians. Rather, I have chosen to make them the topic of my investigation.

2.2.2 PARTICIPATORY RESEARCH

As I have stated above, this research is political of nature and sets out to bring about change. This implies that it cannot be the effort of one person. Of course, this is conflicting with the fact that writing a thesis is an individual task. To overcome this, I have separated my field research from my writing task; not only in geographical sense, as both these activities took place on different continents, but also on the level of participation. While writing this thesis has solely been the effort of one individual, its findings are based on the work carried out by a team of researcher-activists. This process was initiated with my cooperation with YUVA and entailed the writing of a research proposal, which was discussed in the team and constantly reviewing the study process as it proceeded. At the moment of writing this, the study is still continuing. The study, as envisioned by my colleagues and me, attempts to understand and improve the situation of water and sanitation in a certain slum community. It was clear from the start that these rather ambitious objectives, which will be explained in detail below, can only be reached if close co-operation on various levels was sought at all stages of the research. Not only was I, a foreign student, volunteering with YUVA. It was also: 1) a co-operation between me, YUVA and another NGO, in a project in which YUVA already collaborates with four NGOs for the last three years; 2) a process of mobilising and engaging with various groups within the particular slum community; and 3) an effort to co-operate with local politicians to act for the benefit of the community.

This degree of participation at various levels has several implications. On a practical level, it means that when cooperating with many people it can be difficult to meet and work, as all parties (especially politicians) may have other tasks to attend to. It also means that a great deal of patience is required, one cannot just set out

and gather data; it is crucial that all parties, especially the slum community understand what the study is about and why their co-operation is important. This is not a simple task, as many people are not keen on studies, but would rather see that things 'just get done'. There have been some incidents of disagreement on this matter, which were always discussed in mutual understanding. On a more conceptual level, participation implies that the study objectives cannot be rigidly fixed from the start, but rather that they require some flexibility. An example of this was the effort to include solid waste management issues in our study and advocacy activities, as this reflected the wishes of the community.

To engage on a participatory research was something that I wanted to do form the very start of this project, as it was often mentioned during my master's course as an 'new', 'fairer' way of practicing science. However, during my stay in Mumbai I realised that I could not have done it in any other way. This has to do with the difference between 'scientific' and 'situated' knowledge. As the scope of this thesis research is to map the various enactments of slums and sanitation, an insider's look into what a slum and sanitation is, was necessary. This knowledge cannot be gained by simply observations, conducting interviews and through focus group discussions; this is something that residents of the area 'just know'. I don't pretend here, that I have managed to understand all of this knowledge, but by working inside a slum community and with people of YUVA (many of my colleagues live or had lived previously in slums) I was able to understand the subtleties and power dynamics of the settlement a bit better. I do not believe that I would have managed to gain these insights without participating in the daily activities of YUVA's work in the area.

2.2.3 CROSS-DISCIPLINARITY

In its attempt to bring about change in the field of urban (slum) sanitation and more practically in the lives of those that live in the community of the field research, this thesis research has had to tackle the issue of cross-disciplinarity at two levels. On one side, as I have explained above, I have worked closely with activists and the community. This can be seen as collaboration between various individuals, but it was also the encounter of various types of knowledge. While my knowledge on sanitation is derived from books, the community members' knowledge is contextual of nature and the activists have a larger understanding of situating the issues in a city-wide housing struggle context. Co-operating between these different people requires patience to explain and understand each other's insights but also the creation of a new way of working together to understand the issues that can be challenging at times. However, by explaining aspects to an outsider and answering my continuous questions, not only did I understand the issues better, but also my co-workers were able to gain insights and question certain givens.

At another level of cross-disciplinarity, sanitation is a field that is traditionally under the domain of public health specialists and environmental engineers; increasingly it has also come under the attention of social scientists. These fields not only provide us with understandings on the various dimensions (i.e. social, economic, political, gender, environmental, health, legal, engineering, cultural etc.) of the matter, but they are also in interaction with each other. While it is very much needed that more and more scholars from different fields join in on the debate, it is in my opinion counterproductive if all these work on their own little island of specialisation without engaging in new forms of knowledge. I believe that there is much to be gained from insights on how technology shapes society and vice versa; this, although simplistically explained, is what is taught as the sociotechnical approach by the Irrigation and Water Engineering group (IWE) at Wageningen University. It is my conviction that this approach can be expanded to the field of sanitation and that this would largely benefit this field. This thesis is therefore an attempt to carry out such a task in order to reach a context-specific understanding of the matter.

2.2.4 SOCIAL CONSTRUCTIVISM

In this thesis I will use a strong constructivist approach. As the reader has noticed there is no reference to myself in the quasi-objective third form. This thesis, although its supporting research was carried out in a team, is written by one person; it is an insight of my views on the topic of slums and sanitation; it does not claim to be

neutral nor objective. I have myself created the conditions for this action-research to be carried out and can therefore not be considered a passive observer of the process. As I will describe different ontologies of slums and sanitation, I realise that these are constructs of my mind. But does this mean that they are any less real? These constructs are the result of an extensive research and I use the views of many other scholars that have written about these topics. I also understand that by participating in the process of trying to obtain sanitation services in a slum community, I have shaped the very reality that I am describing in this thesis; by reporting my findings and presenting my results to my supervisors and peers, I am also creating my own ontology. This goes against two main principles of classic positivist science, namely that research should be falsifiable and that repeating an experiment will yield the same result. I believe that this way of practicing science is unfeasible in social research; however, I do share concerns that one should not just take my word for my claims, especially as I'm venturing off and defining my own field of study. Therefore I have practiced a great deal of self-reflection throughout the research process and I have always cross-checked my findings with similar studies. Nonetheless, I am well aware that this thesis may be just as myopic as the various ontologies which I attempt to describe. I must take this for granted and realise that my attempt to explain the presence of multiple 'sanitations' and 'slums', and the fact that some of these enactments dominate others, will lead the focus away from other interesting aspects of these objects. This study may be discredited as just the result of a European student staying in India for five months, on his first visit to Asia, relying on translators and not always being able to verify people's statements. It is however also the end product of almost two years of research interest, sole dedication for almost a year and the fruit of my passion and intellect. I state this because I've noticed that many in India do not take kindly to foreigners criticising their society; their work is often disputed on the basis that foreigners do not 'understand' India. To those, I would like to state that my criticism of the Indian society stems from my commitment towards India's poor and marginalised; my work and stay in India has been fully self-financed. It is exactly for this reason that I have chosen to work with a local NGO with ideological roots deeply entrenched in social struggle and with employees coming from the ranks of those they are fighting for. Therefore, to merely say that this research adopts social constructivism as a research approach is a gross understatement. Corny as it may sound, I am this thesis and this thesis is mine.

2.3 METHODOLOGY

This section will describe the research activities that were carried out during the study process. I will discuss the various methodologies that were chosen during the research process as well highlight some of the main events that took place during the period of field research. The research itself can be characterised as a participatory action research which took place in Mumbai from August 2012 to the end of that year. My collaboration with YUVA was set within a larger project, called Umeed (meaning 'expectation' or 'hope' in Hindi), in which four NGOs are working together with the financial and technical assistance of a fifth organisation, Plan International. The Umeed project is a collaborative effort of a consortium of four organizations implementing different interventions in the same geographical area. Umeed operates in three slum communities in one of the city's suburbs. The four partners of the consortium are YUVA, KSWA, ASEEMA and CCDT (see table below); all the different interventions by different partners are funded and technically supported by Plan International. It is interesting to notice that this project was largely financed through the donation of the director of 'Slumdog Millionnaire' as some of the child actors were residents of the neighborhoods. Although Umeed carries out a wide array of family interventions, its main focus is to improve the life of the children of the slum communities; much in line with the work of Plan International and the one of the themes of the international blockbuster.

TABLE 3: THE FOUR PARTNER ORGANISATIONS OF UMEED - ADAPTED FROM (UMEED, 2011)

	Partner	Thematic Areas	Scope of work in Umeed project
1	**Aseema**	Early Childhood Care & development and School Education	Provides education at elementary level in one of the municipal schools in the project area.
2	**Committed Communities Development Trust (CCDT)**	Water, Sanitation and Health	Works in the field of health and education in a wide variety of topics such as vaccination, malnourishment and cleanliness campaigns.
3	**Kherwadi Social Welfare Association (KSWA)**	Household Economic Security	Provides vocational training and job placements for school dropouts in the area.
4	**Youth for Unity and Voluntary Action (YUVA)**	Child rights ; Women rights; Right to water; Right to entitlement	Empowering the vulnerable by building their capacities and providing opportunities to dialogue with the people in power; Working on access to their entitlements, such as documents and basic amenities.

The research that was carried out with YUVA and Umeed was a water and sanitation study that set out to: 1) understand the community's current situation regarding water and sanitation as well as their legal status and the political context; 2) obtain an understanding of the community's perspective regarding their current situation, their will to change the current conditions and their view of what appropriate water and sanitation services would look like; 3) provide some technical features by linking various (inter)national standards of water and sanitation provision to the current situation entailing a translation of the community's wishes into pragmatic technical maps and designs; and 4) assess the possibilities for advocacy purposes and policy recommendations, by capacitating the community to engage with authorities, policy makers can be approached with a clear story and elaborate documentation that reflect the wishes of the studied community (YUVA, 2012b). Therefore, the study also contained a clear action research component that attempted to bring about change and study this process as it unfolded. This was perfectly in line with my thesis research objectives of understanding the various ontologies of sanitation as well as realising what the obstacles are that prevent improvement of sanitary conditions in slum areas.

Below in table 2, an overview of the activities carried out during the field research is provided. I will also briefly elaborate on some of the methodological tools that have been used. Personally, I carried out various semi-structured interviews with experts on slums and/or sanitation in Mumbai. These were carried out mainly at the start of the research period. The interviewees were found using a snowball method; unfortunately I was not able to meet all the people I set out to, but this was mainly due to their lack of response on my interview

requests. In the research team various methods were used. First, a participatory assessment was carried out in the community of the field research at the start of the study in order to find out what the community members perceived to be the most crucial aspects to tackle. Interestingly enough, this participatory assessment, which was held simultaneously at two different locations in the community, yielded not only the same three issues of concern, but also in the same order of priority. Second, focus group discussions (FGDs) were held in the community to obtain a better understanding of the issues concerning the community and their problems in the field of water and sanitation. Seven separate FGDs were held with different groups of community members, segregated by age and gender characteristics. Third, a brief questionnaire was held amongst 10% of the households in the community to obtain additional information that was missing from the FGD data. Fourth, a map of the community was drawn, in order to present the various findings in a visually accessible manner. Furthermore, a vast number of meetings were held amongst various team members, with the community and with officials; some more organised than others. A great deal of visits to various official city and state institutions were also carried out. Records were kept of these meetings and visits, especially with the objective of understanding and evaluating the study process.

TABLE 4: OVERVIEW OF ACTIVITIES CARRIED OUT DURING THE FIELD RESEARCH

Date	Week nr.	Activity
13-08-12	Week 1	Getting settled; first interview
20-08-12	Week 2	Travel to Hosting NGO in Pune; Introductory contact with YUVA
27-08-12	Week 3	First visit to slum communities; Other expert interview
03-09-12	Week 4	Writing research proposal; initial team meeting; other expert interviews
10-09-12	Week 5	Experts interviews; refining research proposal
17-09-12	Week 6	team formation; initial work on questionnaires
24-09-12	Week 7	Continued work on study set-up
01-10-12	Week 8	Initial participatory assessment with community; Initial contact with local councillor
08-10-12	Week 9	Expansion of research team; first focus group discussions
15-10-12	Week 10	Focus group discussions continued; Visit to assistant commissioner of ward office with community members
22-10-12	Week 11	Demonstration of Maharashtra water users federation; Visit to high court regarding public interest litigation filed by YUVA; Reporting
29-10-12	Week 12	Right to pee meeting; Discussing FGDs and study process; Coucillor visit to community
05-11-12	Week 13	Preparing questionnaire and other documents
12-11-12	Week 14	Questionnaire and mapping in community; Mumbai development plan and implications for the area; Discussions with community groups and internally on questionnaire and toilet; Follow up visit with youth group to ward office
19-11-12	Week 15	Supervisor visit; Visit with women's group to member of parliament (MP); Presentation of preliminary findings; Starting work on final report; MP visit to community
26-11-12	Week 16	Reporting to MP; preparing Google Earth map of community; Supervisor meeting

03-12-12	Week 17	Personal holiday
10-12-12	Week 18	Personal holiday
17-12-12	Week 19	Personal holiday; Start of work on toilet block in community (not by me)
24-12-12	Week 20	Various visits to city officials; Finishing work
31-12-12	Week 21	Last goodbyes and travelling back home

The overall responsibility for the study was carried by Sitaram Shelar, city program coordinator for YUVA-Urban in Mumbai; he set out the the main lines, made decisions and steered the team. The composition of the research team varied over the curse of the study: from the start it involved Raju Vanjare, a team member of YUVA, working mainly on right to water issues; Kiran Thorat, a member of Aseema also participated, his activities in the Umeed project concerned among others cleanliness campaigns in the communities. After a short while Sabah Khan, a researcher from Tata Institute of Social Science (TISS) joined the research, her specialisation lie in minority studies and gender issues. She had been previously been working for YUVA and was asked to oversee the study for continuity after my leave from Mumbai. Towards the end of the study Kiran was assigned other tasks and I was working mainly with Raju on a day to day basis. Other staff members of YUVA also joined regularly on activities, especially if overlapping with other work groups. For example, the focus group discussions with women were held by the female staff members of YUVA that were working on the issue of women's rights; they also helped to facilitate discussion with the local women's group.

My initial intention was to live in the slum area I would be researching as to experience what lack of sanitation meant and understand the workings of the community. However, this turned out to be more difficult than I had envisioned. Even though some my colleagues came from the community they advised me not to stay there. It was feared that I would run risks to my health and safety. I must state clearly, also to discard common preconceptions, that I did not incur any problems of the kind; to the contrary I always felt very safe in the area and managed to make very nice and meaningful friendships with the people of the area. Eventually, towards the end I did manage to sleep in the area.

The typical working week in Mumbai, and thus also mine, is from Monday to Saturday. Usually if there was no set appointment we would either work at the main office of Umeed, or in a smaller office in the community area. These two offices were set apart 10-15 min walking distance. Most meetings with the youth groups were held outside, at their usual hangout space; the women's group we met on various occasions in the group leader's house. For daily meetings I would ask my colleagues to translate for me, on set appointments like the FGDs, I arranged translators; these were volunteers from the online community of Couchsurfing that agreed to work with me on my project. Towards the end of the project I relied only my colleague Raju, also because due to practice he had improved his English skills significantly.

The chosen approach has led to certain limitations. If I would not have decided to work with YUVA I would have had fewer entrances in a slum community and talking with officials. However, I would have retained more independence and time to work beyond one community. I can only speculate about the consequences of my choices, but I believe that I have made a good choice that allowed obtaining a deep insight in the workings of social work in Mumbai. I don't know if interviewing more 'experts' would have yielded the same knowledge. At another level, I can tell that one NGO, whose members I particularly wanted to interview, told me that they would only grant me an interview if I was to carry out my research with their organisation. In Mumbai ideological differences and competing claims to scarce funds also result in great animosity between various NGOs. The fact that I have chosen to work with YUVA has probably shut at least as many doors as it has opened. I am still very happy to have worked with them on an academic and personal level. It is only the logical

consequence of carrying out politically sensitive work that one finds him/herself on a certain side of a divided field. This is something I'd rather acknowledge and bear the consequences of, than naively ignore in an attempt to carry out a 'neutral' research.

PART 2: THE SLUM MULTIPLE

CHAPTER 3: SLUMS FROM OUTSIDE IN

The slum is an object of fascination. Novels like Shantaram (Roberts, 2005) and the movie 'Slumdog Millionaire' (Boyle, 2008), have projected the Mumbai slum into the world and created a powerful icon that triggers the imagination of many. The idea of many people packed into small spaces working under extreme circumstances is both intriguing and appalling at the same time. For the majority of European citizens, including my former self, a slum is a far-away object that represents urban poverty in developing countries. It is something that most people will have a negative image of, without ever having set foot in one. I also had a very negative image of slums before my trip to Mumbai, but while most people with such an image would be deterred from going inside, I was immensely curious to see and understand what goes on inside such a neighbourhood.

This chapter attempts to shed some light on this mysterious object in order to and understand the 'slum'. In a way it will reflect my journey as I have made it from outside to inside the slum; and from seeing slums as dumping places of "surplus humanity" (Mahmud, 2010, Davis, 2006) to obtaining a more nuanced view. One caveat that must be made completely clear from the start of this chapter is that the scope here is not to downplay in any way urban poverty and the living conditions of those living in a slum. Rather, the objective here is to understand the phenomenon of slums; which house a large part of the human population, but are known in Western media only as a doomsday scenario of uncontrolled urbanisation.

This chapter will provide a brief description on how slums originate, but the focus will be mainly on why they continue to exist. This will be made possible through an analysis of discourses, definitions, descriptions etc. A starting point of this chapter is to problematize the very word of 'slum' and its normative character, doing so will create an opening into analysing the 'slum multiple', or the various enactments of slums. By analysing different UN reports, NGO documents, Indian and Maharashtran policies and juxtaposing these to my own observations and experiences I hope to show different ways of how slums "get done" (Law, 2011). These are not just different perspectives or representations; as all these different narratives shape policies and interventions they (re)produce various realities.

The topic of this chapter is arguably quite distant to my field of studies, as it mainly deals with a housing problem. However, in this chapter there will also be plenty of references to studies on the management of (drinking) water in Mumbai's slums. This is partly a choice, as it my field of expertise and interest, but also a logical step, as obtaining access to water shapes many important relations in the city and its slums. Watermanagement in Mumbai has therefore been extensively researched and the insights gained from these studies also provide a deeper understanding of the city's society.

As argued in the previous chapter, the distinction between the discursive and the material is impossible, as dominant epistemologies will lead to dominant ontologies (Swyngedouw, 2004; p14). Nevertheless it is still important to try to untangle this web in order to understand how these dominant ontologies come about. The chapter is therefore composed as follows: it will start with a brief overview on the dominant discourse on slums, especially as discussed by international development organisations. Consecutively, this chapter deals with the various views on slums: how are they seen in various circles of Indian and international society (section 3.1) and what the consequences of these views are. A historical and societal analysis of the development and existence of slums in Mumbai will follow (section 3.2). At this point a short intermezzo on Dharavi, the icon of all South Asian slums (Dharavi Intermezzo), will provide a break between the data based on reports and policy documents and my own field work which will follow in chapter four.

3.1 SLUMS: THE DOMINANT DISCOURSE

My first real interest in slums started to develop after reading Mike Davis' 'Planet of Slums' (2006). This book opened my eyes to the many hardships and injustices that slum-dwellers have to face. The book was an eye-opener for me, in the sense that it showed me how those living in urban poverty pay more for all kinds of basic

services such as housing and water than the richer people of the same city. The book gives a critique to current urbanisation models and warned, rather in an alarmist way I would say, to the danger that slums would only grow exponentially throughout the World. Big cities have always fascinated me and in particular the 'dark side' of the city; the part that is not often mentioned, but that provides for poetic images in books and films. Although, I had seen such urban poverty from a distance on various occasions, I remember being first struck by it on my trip in Morocco during the second year of my bachelor programme. The year thereafter I gained a closer look during my internship in Peru on the reuse of wastewater in urban agriculture; and as a thesis topic I carried out a desk study on sanitation in slums. But still I felt that I needed to get inside the slum to really understand it. This (academic) curiosity was, I must acknowledge, also partly fed by the thrill of possible danger and a slightly recalcitrant attitude to go against advice from friends and family.

It is only now, after having been 'inside' the slum to a certain extent, that I realise that this curiosity was only fed by the discourses of slums as places of danger, despair and suffering. This unilateral view of portraying the urban poor is, I have noticed, a common tactic of attracting attention and funds to a certain cause. However, by reducing a complex problem, such as urban poverty, to a single topic issue, the risk is always present that 'simple fixes' are provided as the solution. In other words, when the problem of urban poverty is conflated to the issue of slums, there is a risk that slum clearance is provided as the answer, thereby displacing the inhabitants from homes and livelihood (Gilbert (2007).

This section attempts to describe the 'dominant' discourse on slums in two ways. On one side it is the discourse which one most commonly encounters; this will be illustrated in the first section on how slums are portrayed in the publications of international organizations. On the other side dominancy is explained as the discourse which justifies state power over those that are governed; this is will be elaborated upon at the national Indian level.

3.1.1 GLOBAL DISCOURSE
It is very difficult and risky to define a 'global discourse' on slums. What is presented below is the discourse commonly found in common popular publications, as well as in publications of international NGOs. These, as well as researchers, consultants, journalists and other interested parties can rely on data provided by large UN organisations if they wish to obtain a global overview of the phenomenon of slums. Therefore this chapter is mainly based on the publications produced by the United Nations Human Settlements Programme (UN-HABITAT), which is the UN's body dealing with issues of urban poverty.

Slums are typically seen as the outcome of rapid and poorly planned urbanisation. Cities have grown by unprecedented rates over the last century. Rural poor be it displaced, or fleeing low returns from agriculture and lured by possible gains to be made elsewhere, have swarmed to cities, turning them in fact into megacities. This uncontrolled growth of cities, without adequate planning to provide low-cost housing to the newcomers has paved the way for neighbourhoods to emerge where the inhabitants lack all kinds of basic services. This perspective of viewing slums solely as the product of immigration denies: 1) the role of the state in attracting poor newcomers to construct a planned megacity (Baviskar, 2003) as well as that of private firms that need the cheap labour for their operations (Prakash, 2010; Chaplin, 2011a); and 2) the fact that many so-called 'original settlements' of cities are also classified as slums, for example the Koli community in Dharavi, Mumbai (Sharma, 2000).

The term 'slum' originates from British cities in Victorian times. Although its etymology in unclear, the term went from defining certain areas of buildings to entire neighbourhoods. The term 'slum' was not only used to describe physical housing conditions, but also aspects of public health and criminality (Gilbert, 2007). The much cited definition used by the Oxford Encyclopaedic Dictionary is a typical reflection of this perspective: 'an overcrowded and squalid back street, district, etc. usually in a city and inhabited by very poor people; and a house or building unfit for human habitation' (Hawkins and Allen, 1991: 1369 in Gilbert, 2007). Although UN bodies have tried to provide various definitions and proxy's to determine whether an area is a slum or not, it

seems that the general connotations of squalor, filth, disease and criminality are persistent (Gilbert, 2007)[7]. UN-HABITAT uses the following definition of slums:

"A slum household consists of one or a group of individuals living under the same roof in an urban area, lacking one or more of the following five amenities: (1) durable housing (a permanent structure providing protection from extreme climatic conditions); (2) sufficient living area (no more than three people sharing a room); (3) access to improved water (water that is sufficient, affordable and can be obtained without extreme effort); (4) access to improved sanitation facilities (a private toilet, or a public one shared with a reasonable number of people); and (5) secure tenure (de facto or de jure secure tenure status and protection against forced eviction). Since information on secure tenure is not available for most countries included in the UN-HABITAT database, however, only the first four indicators are used to define slum households, and then to estimate the proportion of the urban population living in slums." (UN-HABITAT, 2010; p33)

This definition may pay more attention to physical infrastructure than other aspects that constitute slums, but this can also be explained as a methodological choice in order to simplify the process of identifying and quantifying slums. The UN does recognise tenure security as a central issue to slum conditions, however, this aspect is not taken into account for quantifying the number of slum dwellers. One of the quantitative purposes this definition is used for is for example to estimate the rise or decline of slum dwellers. In fact target 7D of the Millennium Development Goals is:

"By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers." (UN MDG website[8]).

This target was met and surpassed 10 years early, as 227 million were estimated to have moved out of slum conditions between the year 2000 and 2010. However, this is mainly due to the fact that the initial estimation was set too low from the start; 100 million was only 10 per cent of the global slum population. While the relative amount of urban population living in slum conditions declined from 39% in 2000 to 32% in 2010, it appears that the *absolute* number of people of living in slums is only rising as more and more people are moving to cities. In 2020 world's slum population is expected to amount to 889 million people. (UN-HABITAT 2010)

In its report "*State of the World's Cities 2010/2011 - Bridging The Urban Divide*" (UN-HABITAT, 2010), UN HABITAT not only presents these dazzling figures, but also does an excellent job of highlighting the effects that urban poverty has on education, health, employment and overall participation to the city in all its facets. However, the organisation's own recognition of the low initial estimate, shows just how little is known about slums. The UN depends on available data from various national governments; in many countries slums are considered illegal and therefore slumdwellers are (or were until recently) not counted as a separate category in national surveys and census. Even if properly counted, doubts can still be raised to what extent slums have become a stand-in for urban poverty, as the latter continues to provide methodological challenges of accurate and relevant measurements; slum populations are on the other hand more easily quantifiable, even though these two categories might not neatly overlap (Arabindoo, 2011). It is also questionable how to measure those that "have been moved out of slum conditions"; as will be explained below in section 3.2.2, it may well be that those that have literally 'been moved out' are worse off than when they were when living in the slum. .

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[7] In various Latin American countries slums are labelled *invasiones* (literally invasions) (see for example (Swyngedouw, 2004), evoking notions of 'the enemy' and colonisation.

[8] UN MDG Goal 7: Ensure Environmental Sustainability." Retrieved 19-1, 2013, from http://www.un.org/millenniumgoals/environ.shtml.

The point I have tried to raise in this section is that despite all good intentions of international organisations such as UN HABITAT, slums are: 1) merely portrayed as the result of high immigration rates; 2) a physical condition, expressed in terms of what is absent regarding type of housing, area size and water and sanitation facility; 3) seldom undifferentiated across the globe; and 4) described using the same word that has negative connotations since 19th Century Britain.

Box 3.1 Academic neo-Marxist discourse

Although it may be strange to position this box under the heading 'dominant discourse', here I will describe the position of those scholars that write about slums and urban poverty mainly from a Marxist tradition. It will become clear that although their message might be different, their analysis is as detached from a local context as global UN reports.

Scholars like Harvey (2003) and Mahmud (2010) describe slums as the dumpsite of "surplus humanity". This is done by deploying abominable images of Dharavi, "the largest slum of Asia" and portraying its residents as victims of, and also resisters to, neoliberal capitalism. It is argued that people are forced to move to slums because of evictions due to the construction of dams or of being priced out of the agricultural sector; on the other side the constant struggle of slumdwellers against state and property developers is also seen as a form of class struggle. Both processes can be understood as "accumulation by dispossession". In short, in a capitalist system, those that gain wealth, inevitably do so by robbing others of their wealth or wellbeing. They argue for a struggle under the name of the "right to the city" (Lefebvre, 1968), as a counteroffensive to these developments.

These authors show that the great wealth that is made possible through capitalism is accumulated through dispossession and the use of cheap labour. In this discourse, slums are seen as the downside of this capitalist accumulation, as these areas house the cheap labour which is necessary for the capitalist economy to function. The terrible living conditions in which people in slums live are seen as the failures of the capitalist system to take care of large sections of society.

Critics of this point of view argue that this political economic narrative is a simplification, as local situations are far more complex than suggested; they also argue that this dichotomy of 'haves' and 'have-nots' reinforce the capitalist system as it makes "revolutionary collective action" the only resource available to the marginalised (Anand, 2011a; p544)

3.1.2 INDIAN ENACTMENT

In India the language of naming slums is much richer, varying from city to city and describing different types of settlements. The 2011 Census makes a distinction between 'notified', 'recognised' and 'identified' slums. Notified slums are "*All notified areas in a town or city notified as 'Slum' by State, UT Administration or Local Government under any Act including a 'Slum Act'*" (Census, 2013); recognised slums are "*All areas recognised as 'Slum' by State, UT Administration or Local Government, Housing and Slum Boards, which may have not been formally notified as slum under any act*" (ibid); and an identified slum is "*A compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities*" (ibid). The Indian slum population is estimated to be 13.7 million households in 2011 (Census, 2013) which is an equivalent of 65 million people (own calculations, based on same data). However, this number is estimated to be considerably higher if urban clusters of at least 20 households were to be classed as slums (Raman, 2013).

Slums can be found in every major city of India and their population is predominantly formed by marginalised people that have emigrated from other parts of the state or of the country. The reasons for emigration differ, it could be families fleeing a drought or displacement due to the construction of a large dam, but it can also be

temporary emigration of a single (male) family member[9]. The origins of Indian slums seem to lie in the 1920s and 1930s when agrarian depression as well as the rise of employment opportunities due to industrialisation led to a rapid urban population growth (Chaplin, 2011a).

There have been many policy measures to improve the situation of slums have been many throughout the years. Bhide (2009) explains how slum policy (in Mumbai) has shifted from negation, to tolerance ad to acceptance. The latest scheme unveiled by the central government, named Rajiv Awas Yojna, is supposed to lead to a 'slum-free India'. The rationale behind this vision is that slums, as spatial entities, can be targeted and that urban poverty will be resolved through the eradication of slums (Arabindoo, 2011). The scheme sets out to: 1) bring the existing slums within the formal system, thereby allowing access to the same level of basic amenities as the rest of the cities; 2) address the failures of the formal system that lie behind the creation of slums; and 3) tackle the shortages of urban land and housing that force the urban poor to resort to extra-legal solutions for livelihood and employment (GoI, 2011). This progressive project is supported by the country's eminent social workers.

However, this pro-poor attitude is only one face of government that slum dwellers get to see. Large scale evictions in Indian cities are (still) common events: 300,000–450,000 people were evicted in Mumbai in 2004-2005; 200,000 have been evicted in Delhi in preparation of the 2010 Commonwealth Games; in Chennai 200,000 have already been evicted with plans to displace another 300,000 (Arabindoo, 2011). Such evictions are not uncommon, since independence eviction 'waves' have been carried out every so often dependingt on the city. The official policy may change over the course of the years, but evictions seem to be a recurring phenomenon (Bhide, 2009). A core issue seems to be the two faces of the official authorities. On one side government is responsible for upholding the law and can therefore not tolerate illegal settlements on state or private land. On the other side, every government, be it at the local, state or national level is composed of elected officials. These people need the votes of the poor, as they represent vast numbers and are far more likely to vote (Chatterjee, 2004). Evictions are therefore often carried out after elections.

One justification for evictions that politicians seem to be reverting to more and more often, are the verdicts of the judiciary powers, in particular those of the High Courts. These have made a shift in discourse over the last 30 years or so, moving from a guardian of civil rights of the poor to condemning slum dwelling as an unlawful act which deserves punishment (Bhan, 2009; Bhide, 2009; Ramathan, 2006). There has been a shift from interpreting the Constitutional "right to life" as a tool for defending the homes and livelihoods of the urban poor, towards denouncing slums and slum dwellers as encroachers (Ramathan, 2006). This shift in judiciary discourse, with strong aesthetic connotations, links hygiene and appearance to development; using terms such as "cleaning up the city'', "becoming a world-class city" (Bhan, 2009). This shift was made possible by the use of Public Interest Litigations (PIL), a judiciary tool that was expressly intended for (groups of) citizens of marginalised background to reach the courts for their legal and constitutional rights. PILs have however, been used repeatedly by middle-class and elite groups to force evictions of settlements, often employing an environmentalist discourse (Baviskar, 2003; Bhan, 2009; Ramanathan, 2006). The high court has often ruled in favour of these groups and condemned the acts of slum dwellers stating that "[r]ewarding an encroacher on public land with an alternative free site is like giving a reward to a pickpocket" and claiming that the actions of slum dwellers go directly against those law-abiding, tax-paying citizens that have to pay for their land or flat (Ramanathan, 2006; p3195) Meanwhile, the city government's response is that it will "respect the court's rulings" (Bhan, 2009; p128). In Mumbai a series of vicious large-scale evictions were carried out in response to some of these PIL rulings (Bhide, 2009).

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[9] The term 'temporary' can be a bit elusive here. I have met rickshaw drivers in Mumbai that have 'temporarily' emigrated to the city for the last 15 years and I have seen families from Kashmir that flee the freezing cold every winter only to return to their area in spring.

Overall one can say that, despite the fact that we are living 65 years after India gained its independence from the British, not much has changed in the discourse that describes slums and justifies evictions. The British considered slums as places of filth and crime, and responded to outbreaks of cholera and plague, by demolishing slums without proper rehabilitation (Chaplin, 2011a). Newly developed epidemiological and microbiological insights of the Victorian era helped to reinforce the notion that slums were breeding spaces of diseases. In some cases outbreaks of infectious diseases were used to justify 'beautification' projects, which benefited the rich rather than the poor, such as the 1920s Backbay reclamation project in Bombay (Prakash, 2010). Thus, in addition to authors such as Chaplin (2011a; 2011b), who argue that the congested slums in Indian cities are part of the colonial legacy, I would argue that the discourse around them has not changed much either. Slums are still defined as dirty and unhygienic and are perceived by the middle class as dirty, ugly and as a breeding pool of disease and crime. This discourse is also still used to justify slum clearances as attempts to 'beautify the city', while it seems that without proper relocation and rehabilitation programmes it is nothing more than a strategy to relocate the urban poor to parts of the city where they are not in sight of the middle and elite class.

At a more abstract level, the attempts of middle-class citizens to induce evictions and displacements through court action, can be understood as the opposition between civil society and political society. As Chatterjee argues in his essay: "*Are Indian cities becoming bourgeois at last? Or […] are Indian cities becoming bourgeois alas?*"(Chatterjee, 2004; p131), these middle-class groups can count on the support the courts because they are operating in the field of civil society; they are, in fact, on the side of the law. The authorities, somewhat contra-intuitively, apparently have to be convinced through legal mechanisms to defend the rights of law-abiding citizens over those of trespassing encroachers. This stance can however be explained easily by the fact that these authorities have long condoned and accepted slums and hawking as the result of a series of negotiations and paralegal agreements in exchange for votes and social ease. This field, which can be considered outside of that which is completely legal, is what Chatterjee calls 'political society'.

3.2 SLUMS IN MUMBAI

Somehow my idea of wanting to study the life in the slums of Mumbai is not that original. A whole array of international and national scholars has written on the housing issues in the slums of Mumbai/Bombay. The slums also feature predominantly in serious and less serious bestsellers located in the city, such as "Shantaram", "Maximum City" and "Behind the Beautiful Forevers". Apparently, there is something about the Mumbai slums that appeals to popular imagination. The international blockbuster and Academy Award-winning movie "Slumdog Millionaire" is perhaps the best known example of a story situated in Mumbai's slums that has been spread throughout the world. This all is interesting because it seems that much of the discourse on slums, at least in the Asian context, appears to be based on cases from Mumbai. In particular Dharavi, often referred as Asia's largest slum, features predominantly in any type of literature on slums[10].

This section, while acknowledging that the 'Mumbai slum' exists on so many different levels, and probably deserves an ontological study of its own, will briefly try to describe the city's slums. It will touch upon the emergence of the slums and how they are closely intertwined with the city's development. I will also describe how, despite their 'necessity' to the city, slums and slum dwellers are still shunned by the middle and elite classes. More importantly, I will also describe the manifestations of this division as present in (local and state) government policy. As the references mentioned above suggest, this section will also touch upon the views of the slums as they are developed through their presence in popular media.

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[10] This area and in particular its dominance in the 'slum literature' will be briefly described in a separate intermezzo after this chapter.

3.2.1 SLUMS EXPLAINED

This section will describe the slums of Mumbai. In particular the emergence and growth of slums will be discussed as well as various characterisations of these areas. This process is risky as reliable data are difficult to come by and probably facts from this section are contradictory to statements made elsewhere in this thesis. It does give however an idea of the 'common knowledge' on slums in the city.

ORIGINS AND GROWTH OF SLUMS IN MUMBAI

Slums seem to have emerged in the 1930s in Mumbai. The word 'slum 'is actually rather inaccurate as it gives the same label to communities which originally emerged as expansions of the already present fishing villages (Sharma, 2000), private *chawls*[11] and government colonies. At the time, the city faced a housing crisis as vast masses moved to the city to work in factories and in the informal sector. During the following decades this situation didn't change much; especially during the drought in the Deccan Plateau of the 1970s there was a sharp rise in slum population. The table below gives an indication of the growth of Bombay/Mumbai's slum population in relation to the total number of inhabitants. I use the term indication because of the variety of source consulted, the differences in defining the city's boundaries and the variances caused by the change in the official definition of "slum"; this explains also the divergence present in the last two columns[12].

TABLE 5: Growth Of Slum Population In Mumbai (Bhide, 2009; Census, 2011; Census, 2013; Chaplin, 2011a; Mundu & Bhagat, 2011)

	1901	1911	1921	1931	1941	1951	1961	1981	2001	2011
Population Mumbai (millions)	0,88 (Chaplin, 2011a)	1,02 (Chaplin, 2011a)	1,25 (Chaplin, 2011a)	1,27 (Chaplin, 2011a)	1,69 (Chaplin, 2011a)	2,97 (Bhide, 2009)	4,15 (Bhide, 2009)	8,24 (Bhide, 2009)	12,0 (Bhide, 2009; Mundu & Bhagat, 2011)	14,3 (Census, 2011)
Population slums (millions)	-	-	-	-	-	-	0,4 (Bhide, 2009)	4,2 (Bhide, 2009)	6,2 (Bhide, 2009)	8,7 (Census, 2011)
									6,4 (Mundu & Bhagat, 2011)	4,9 (Census, 2013)
Percentage of slum population	-	-	-	-	-	5% (Bhide, 2009)	12% (Bhide, 2009)	51% (Bhide, 2009)	49% (Bhide, 2009)	41,6% (Census, 2013)
									54,1% (Mundu & Bhagat,	62% (Census, 2011)

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[11]A *chawl* is a row of rooms that share facilities such as water taps. They are usually found in two to five storey buildings.
[12] I suspect that there are political choices that influence the chosen parameters to keep the numbers of slumdwellers as low as possible.

										2011)	

Mumbai's slums have emerged hand-in-glove with the city's growth, both in population and area size. Old fishing villages expanded as land was reclaimed to form a peninsula from the original islands. Slums formed around these as undesired activities such as tanneries were forced to relocate to these areas just outside the city boundaries (Bhide, 2009; Sharma, 2000). *Chawls*, with an approximate area of around $6m^2$, meant to house the workers of the cotton mills, became more and more crowded as new immigrants from rural areas joined those in the factories. Soon also these degraded as more and more people shared limited spaces and water and sanitation services. Those that were not so lucky to move in with a member of kin in a *chawl* resorted to living on the streets and in shacks (Prakash, 2010). These people not only worked in the factories, they also formed the vast masses of informal labour that to date still provides domestic workers, construction labour, shoemakers, clothing pressers, street venders etc. As noted by Prakash (ibid), even those colonial observers that noted the Dickensian aspect of these areas, failed to notice that the rapid industrialisation was directly responsible for the inhuman forms of housing. Colonial capitalism, he notes, was directly responsible for the growth of slums (ibid).

CHARACTERISATION OF MUMBAI'S SLUMS
There are said to be around 2000 slum pockets in Mumbai; two important studies provide different data, one being 1959 and the other 2245 (YUVA and Montgomery, 2001; MPCB, 2003). The difficulties in counting slum pockets arise from what is classified to be one. Typically there are three categories: 1) *Chawls* and *Patra Chawls*; 2) Pavement dwellings; and 3) *Zodpapattis*. *Chawls* are one-room apartments which due to low rents have been poorly maintained. Being crowded and in a dilapidated state makes that these *chawls* can be considered to have slum-like living conditions, although they are not officially considered to be slums. Pavement dwellings house many migrant labourers and are shanties build alongside the road. The people living in these conditions are often prone to harassment and extortions. Census data from 2001 indicates that there are almost 130 000 pavement dwellers (MCGM, 2010). They are also not always counted as slum communities, depending on the temporary nature of their
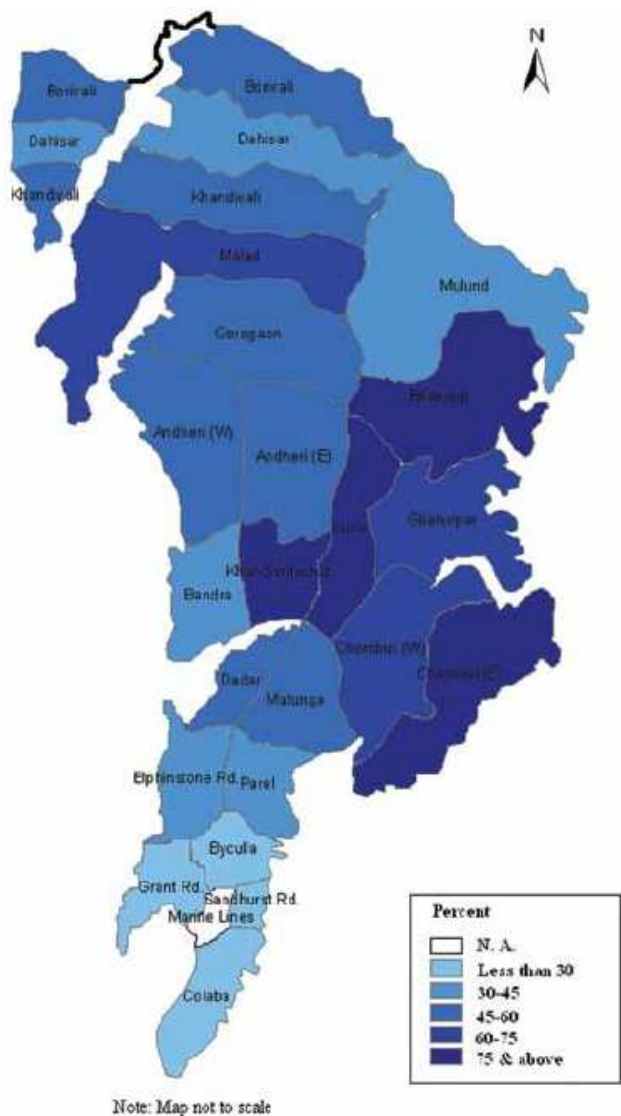
FIGURE 8: PERCENTAGE OF SLUM POPULATION ACCORDING TO WARDWISE DIVISION OF MUMBAI (MUNDU AND BHAGAT, 2011)

residence. The last category consists of those that are squatting and living in the shacks. This is what is most commonly understood and most visibly recognisable as a slum. These settlements are often found on land that is not suitable for development such as flood-prone marshes, hillsides and areas along railway tracks.

Most slums (93%) are notified to the Municipal Corporation, meaning they are officially registered as slums. This grants them a bit more security and allows them to request public services such as water connections. The majority of slums are found in the Western suburbs (58%), followed by the Eastern suburbs (25%) and the remaining 17% in the island city (YUVA and Montgomery, 2001). Most of these slums (62%) consist of dwellings predominantly made with permanent materials such as brick walls and reinforced cement roofs; 27% of the slums are made with semi-permanent materials such as brick walls and asbestos or tin roofs; a slight minority consists mainly of temporary structures. A fourth type of distinction for slum pockets is the ownership of the land they are settled on; this can have a great influence on resettlement or demolition of the slum. Those on private land, which probably were allowed to emerge in order to bypass land ceiling regulations, depend on no-objection certificates from the owner for improvements; those on State and Municipal land have been more easily declared as slums and have therefore services provided to; those on land of Central Government Authorities (such as Railways) have not been threatened much with eviction, but have encountered a great deal of resistance in collaborating in rehabilitation schemes (Bhide, 2009). In Mumbai most slums are located on private land, as can be seen in the table below.

TABLE 6: LAND OWNERSHIP OF SLUMS IN MUMBAI (YUVA AND MONTGOMERY, 2001)

Land category	Number of slum pockets	Percentage of slum pockets
Municipal	313	16,0%
State government	431	22,0%
Central government	88	4,5%
Railways	13	0,7%
Private	924	47,2%
Mixed	190	9,7%
Total	*1959*	*100,0%*

A last crucial distinction that is made between slums is the date that the area has emerged and been notified to the city authority. The city uses cut-off dates to declare slums as legal or illegal (note this is different than notified and un-notified); the original date of tolerance was 1976 but was extended to 1980, 1985, 1995 and more recently 2000 (Bhide, 2009). Extending this cut-off date is often a tool to gain votes in elections. Problems arise when different households within a community have different dates of settlement and also tenants, who form a large section of those living in slums, are not accommodated by this policy (ibid).

WATER AND SANITATION IN MUMBAI'S SLUMS
Water and sanitation services are often mentioned when slums are described because of their importance to human health and because these services are usually lacking in slum areas; as such they are also related to the notion of slums as breeding grounds of disease. However, the focus on water and sanitation can also partly be explained because these are criteria to determine if an area can be considered a slum or not. This leads to a slight confusion of what is the cause and what is the effect: is an area a slum because of lack of access to water? Or does an area lack access to water because it is a slum?

It is estimated that 18,5% of the urban poor households have access to piped water supply at home, against the city average of 50,7% (MCGM, 2010; p71); in non-slum homes 92% are estimated to have access to piped water in their premises. Those that do not have piped connections near their premises have to fetch water from outside, carrying it home on their heads (YUVA, 2010). This is usually a woman's task which is also shared by girls; in average a woman spends 3 hours and walks 1,5 km to fetch water (ibid). This has a direct impact on the growth and the school attendance of the girls (ibid). The average quantity collected per family is 150 litres which costs on average Rs. 600, or 17% of the average surveyed income (ibid).

TABLE 7: ACCESS TO WATER IN SLUMS OF MUMBAI (YUVA AND MONTGOMERY, 2001)

Type of water supply	Percentage of slum households	Number of slums
Individual tap	5,26%	103
Shared tap (between several households)	49,77%	975
Stand post	11,69%	229
Tubewell	0,51%	10
Various sources	31,90%	625
No supply	0,87%	17
Total	*100,00%*	*1959*

The sanitation situation is even more precarious. In 2005 it was assessed that 72% of the slum population uses public toilets, 17% has individual latrines, 6% defecate in the open and 3% use public toilets in other slums and 2% use a mix of services (WSP, 2006). So while it is reported that "98% in slums have access to some type of toilet facility, share or otherwise" (MCGM, 2010; p72), this masks the condition of these toilets. The average ratio of people per toilet seat is 81; 273 is the highest and 51 the lowest; and only 14% of the public toilets are reported to have access to water (HDR, 2009). The low level of access to water and sanitation leads to a high incidence of water-related diseases such as diarrhoea, typhoid and malaria (Karn et al., 2003). Tuberculosis and asthma are also common diseases in Mumbai's slums and as many as 11% of the inhabitants are reported to be sick at any time (ibid).

This dichotomy between slum and non-slum residents in terms of water and sanitation coverage is not a recent phenomenon. Gandy (2008) explains how the drinking water system of Mumbai, which originates in the colonial period, has been supplying water in a discriminatory manner since the very start. When the Vehar project was completed in 1860 it was the first municipal water supply scheme in British India, however access to this system was limited to the city's elite (ibid). As the city expanded, supply of water has always been lagging behind demand; expansions to the system have often been built in response to a severe water shortage (ibid). The piped water system in the city of Mumbai is currently supplied with 3000 million litres daily (ibid), this is distributed through the city on a rotational basis (Anand, 2011b); many slums are not officially provided

with water (see box 3.3) but even then water reaches many areas unofficially through all kinds of arrangements, negotiations and deals that are facilitated through the participation of local politicians and bureaucrats. Interestingly enough, as a hydraulic engineer, formerly employed by the municipal corporation told me, supply to neighbourhoods is calculated on the basis of a differential water use pattern; those that live in buildings receive 135 lpcd, those in *chawls* 90 lpcd and those in *zodpapattis* 45 lpcd[13]. The reason for this difference in water consumption is justified by stating that those in slums do not have flush toilets and also lack capacity to store water, providing more would merely lead to waste (ibid).

3.2.2 MUMBAI'S HOUSING POLICIES

After this basic introduction in Mumbai's slums it is useful to look back and consider what the major policies were that have led to the current housing situation in which more than 60% of the inhabitants are reported to live in slums. This will help to make clear how the city and the city's slums have co-evolved throughout this period. Special attention will be given to the underlying discourses and assumptions of these policies and how their material outcome.

THE PLAGUE AND ITS AFTERMATH

The housing situation in the city and its sanitary conditions are two deeply intertwined stories that have shaped each other since a long time. A plague outbreak in 1896, which saw half of the population fleeing, eventually led to the creation of the Bombay City Improvement Trust in 1898. Interestingly enough the series of plague outbreaks, which lasted until the First World War, have been caused by the increase in water supply to the city combined with a lack of proper drainage, leaving complete neighbourhoods in a contaminated waterlogged state (Gandy, 2008); this is probably due to the fact that reclaimed land in central Mumbai lies lower that the outer ridges which formed the original seven islands. The Bombay City Improvement Trust was however created to demolish slumlike housing, develop new areas and build *chawls* for the working classes just at it happened in Victorian Britain. The idea was to increase hygiene by reducing congestion in the city. Its powers of compulsory acquisition and demolition of property made the organisation unpopular amongst tenants as well as landlords. More dwellings were demolished than new ones were constructed and due to limited funds, the new housing also lacked sewer connection, leading again to unsanitary conditions (Chaplin, 2011a). In order to catch up on the housing shortage, the Back Bay reclamation scheme was set up in 1909. This plan was already devised before in 1860, but had been abandoned soon after the real estate bubble burst (Prakash, 2010). The renewed effort to reclaim land in the Back Bay, it was claimed, would relieve congestion in the areas populated by the working classes by develop houses for the bourgeoisie (ibid). Increasing costs, technical difficulties, the resistance of Congress nationalists such as K.F. Narinam as well as the onset of the financial crises at the end of the 1920s led to the project finally being abandoned in 1930 (Chaplin, 2011a; Prakash, 2010). The Bombay City Improvement Trust ceased existing in 1926; its legacy seems to have been more beneficial to the personal interests of the board members (Chaplin, 2011b) than to the urban poor who continued to live in sub-standard conditions. Those who were displaced due to demolition were not provided with adequate housing and settled in other slums or formed new colonies. Unfortunately, for those that live in slums, the idea of demolition as a useful tool when "beautifying the city" continues to exist to date (ibid).

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[13] Interview with ex-BM hydraulic engineer on 8-9-2012

India's independence in 1947 marked the beginning of a new era for the country. Despite the potential for change, it seems that the country continued to be ruled by the vested interests. The Congress party, led by the Gandhi-Nehru dynasty, has ruled the country unchallenged for a large part of the post-colonial period.

Independence came without any change in social structure and with a process of "Indianisation of the apparatus of governance"(Varma, 2007;p26); this apparatus was adopted without any significant changes (ibid). Those that came in power after Independence were, despite their nationalist traits, all members of a similar social class that can be classified as the "English-educated [Brahmin] elite" (ibid; additions mine). Urban planning under this elite continued to neglect the housing and spatial needs of the informal sector workforce (Chaplin, 2011a). Two factors appear to have influenced the urban planning policy in the period following independence 1) Gandhi's idealisation of the village; and 2) Nehru's modernist approach. The first factor led to a focus on slowing down the growth of large cities rather than building urban infrastructure, while the second approach focused on building new cities (e.g. Navi Mumbai) to act as countermagnets and reduce congestion (Chaplin, 2011a).

In the initial years after independence

> **Box 3.2 The Bombay Rent Act**
>
> *The Bombay Rents, Hotel and Lodging House Rates Control Act 1947, popularly known as the Bombay Rent Act which came in effect in 1948 froze the rent level of all the buildings leased at the time to 1947 levels. It was intended as a five-year emergency measure to protect tenants from post-wartime inflation and speculation. However, once passed, the Rent Act was a Pandora's Box that could not be closed again. As there are more tenants than landlords, the former constitute a powerful political lobby; revoking the Rent Act would mean political suicide for any party. The Rent Act was extended more than twenty times. It was replaced by the Maharashtra Rent Control Act in 2000.*
>
> *As the rents were frozen of 1947 levels, landlords refused to repair the buildings, leading to massive dilapidation. The tenants' proposal to sell them the property for hundred times the fixed rent was also brushed away, as this would mean selling property in the most posh area of Mumbai at a price that would not suffice to buy a slum room at market prices.*
>
> *The Rent Act and its repeated extension, has led to a situation where some of the richest people live in rent-controlled bungalows while others have to commute for hours from far-away suburbs. It has blocked the way for any kind of housing development in South Mumbai for a long time.*

slums were seen as unfit housing and dens of crime; the mantra was to demolish slums and replace them with 'acceptable' housing (Bhide, 2009). The Slum Clearance Programme of 1956 granted governments the powers to acquire slum areas and redevelop them. The limited availability of resources for this programme led redevelopment being outnumbered by demolitions (ibid). This "age of negation" gave way to an "age of tolerance" and an "age of acceptance" in official policy discourses. However, evictions have continued to play a central role in slum housing policy (Bhide,2009) Furthermore, despite that urban development policies have become more progressive over the years, these policies developed by the central government have been characterised by poor implementation by state governments (Chaplin, 2011a). Housing and redevelopment schemes meant for the poor are grabbed by the lower middle and middle income groups as the poor cannot cover the recurring costs of maintenance; the apartments are sold to the middle class and the residents for whom these flats were intended move back to a slum (Chaplin, 2011a; O'Hare and Abott, 1998).

Box 3.3 The Land Ceiling Act

The 1976 Urban Land Ceiling and Regulation Act (ULCRA) was introduced to counter speculation with vacant land. As government has had to acquire land at market prices it was lucrative for developers to keep land vacant, thereby reducing the supply of available land so as to increase the market value of land. ULCRA was meant to end land speculation by imposing a ceiling on vacant land.

This Act has led to a series of undesired outcomes. First, developers have allowed slums to come up on their land to avoid the ceiling of vacant land. It has also led to a reduction in available land for development and thus in a steep rise of land and therefore also house prices

There are also claims that this Act has also had influence on the housing shortage, as the builders are afraid to construct mass housing projects as land can be taken away from them and transferred to the state. Furthermore, there have been a series of scandals in which confiscated flats under ULCRA have been passed by politicians to their connections.

As government was unable to recover much land for public housing, the Act was scrapped in 2008 in Maharashtra.

As the ever-present housing deficit grew in the post-colonial period (MCGM, 2010), it has been the middle class[14] that has benefited the most from government policy. Affordable housing is extremely difficult to find in Mumbai, forcing people to move to slums or into distant suburbs (see also the box on the Bombay Rent Control Act). The middle class that lives in formal housing has access to services that the municipal corporation is obliged to provide. This does not mean that these services are always provided adequately, but the middle class are able to deploy their family, caste or work connections to gain access to water, electricity and sanitation services (Chaplin, 2011b; Gandy, 2008(Varma, 2007)).

Another aspect of importance is the fact that the housing schemes that have been built have little consideration for the urban poor employed in the informal economy. The decline of the textile industry and the closure of the city's cotton mills have led to a rise of the number of those employed in the informal sector (Bhowmik, 2009). These are people employed in casual/contract labour or self-employment; both types of work generate low and irregular income and are further characterised by lack of social security, little regulation and the absence of legal protection (ibid). Estimates are that around 65% of the workforce is informally employed (ibid). These people, who cannot afford to commute, often reside in slums near the site of employment. It is very common in Mumbai to find slums next to luxury apartments; these slums house the domestic servants and drivers of the people living in luxury. Another category of informal workers are the self-employed, whose slum dwellings have a double-role of housing and employment site (Srivastava, 2012; Sharma, 2000). This means that houses need ways of access for the raw materials and final products to enter and exit the dwelling; often these activities are also polluting. Housing schemes in apartment towers are not planned for these activities, making them unsuitable to house these self-employed people.

THE NEOLIBERAL CITY

Since the 1980s, the city of Mumbai has gone through a series of neoliberal policy measures. On one side it has been the experimenting ground for World Bank led slum improvement programmes characterised by "community consent and participation" discourse (Desai, 1996; O'Hare and Abbot, 1998); these programs have also failed to produce structural change for slum dwellers, the slums are still not present on development maps

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[14] Despite being aware of the problems of using generalist descriptions, I shall refer to the middle class as a specific segment of society that is distinct from the 'poor' or 'marginalised'. Varma's (2007) describes the Indian middle class as a section of society which has evolved from the English speaking intelligentsia in the period directly after independence, to a vast class of people (around 500 million) defined by its ability to purchase consumer goods in the post-1991 period of economic liberalisation. Arguably, according to this description, also many that live in slums could be counted as (the lower) part of the middle class; however, for clarification purposes I shall mainly refer to the middle class of Mumbai as those that can afford to live in formal housing, be it in the monetary sense or through strategic (kin or caste) connections.

of the municipality, placing them under a perennial threat of displacement (Bhide, 2009). On the other side, the city (and particularly its elite) has formulated ambitious visions of the future to become a "world class city" like Shanghai. This has led to the return of waves of evictions and a discourse of a city without poor people.

Two main World Bank programmes were adopted in Bombay: the Slum Improvement Programme (SIP) from 1976 and the Slum Upgradation [sic] Programme (SUP) from 1983/84. The SIP attempted to increase the provision of water, sanitation, pavements and electricity for slum pockets established before 1985. Despite that the large number of slum dwellers targeted by this scheme (over 3 million), the programme was characterised by limited finds and lack of maintenance of the delivered infrastructure (O'Hare and Abbot, 1998). The SUP envisioned the lease of slum land at affordable prices to community groups of slum dwellers as well as loans for house improvement; it also planned for "a sites and services provision scheme" (O'Hare and Abbot, 1998; p279). Unfortunately both these yielded disappointing results as land acquisition has encountered a great deal of resistance from various levels (ibid). Private land, on which a large part of the city's slums are located, proved to be legally difficult and expensive, many owners resisted surrendering ownership (ibid); when successful it usually depended on mobilising political connections (Desai, 1996). Acquisition of public land was hampered by the complicated time-consuming processes required to transfer ownership. Each administration level (municipal, state and national) relied on a different procedure, a plethora of public utilities also had to be approached ; working through all these bureaucratic channels resulted in limited and slow transfer of land (O'Hare and Abbot, 1998). At the level of sites and service provision the World Bank's approach of "affordability", "cost-recovery" and "replicability" seemed to have failed when applied in the Indian context (ibid). This was again due to the difficulties in acquiring land; furthermore, the majority of sites were occupied by higher income groups and not the target population of the scheme. The lower income groups also sold these sites to middle- and high income groups who bought these on speculator grounds (partly fuelled by the prospective of the scheme's improvements) (ibid).

Since the 1990s a new approach to housing and slum upgrading has been applied in housing in Mumbai through market-led mechanisms. Following an electoral promise from Shiv Sena, all slums built before 1995 were to be legalised and be eligible for free-of-cost housing. This would be provided by developers, which in turn, would be allowed to develop and sell half of the rehabilitated floor space (Chaplin, 2011a, Nijman, 2008). A special Slum Rehabilitation Authority was set up for this scope. In some cases the slum dwellers were rehabilitated on site, in others they were relocated elsewhere (in the Northern direction). As land value in Mumbai had skyrocketed, with prices comparable and even exceeding those in New York, it was argued that slums, which were often located on prime value land could be rehabilitated and transformed into flat buildings by developers without any cost to the state. The surplus value gained from the sale of apartments constructed on a fraction of the land would motivate developers into providing free apartments for slumdwellers. This

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Box 3.4 Denying access to water: the Mumbai water mafia

The legalisation of all slums constructed before 1st January 1995 meant also that those that were constructed thereafter were to be considered illegal. In a Maharashtra Government Circular (GoM, 1996) it is explicitly mentioned that these illegal settlements shall not be provided with water. This excludes about 3 million people from legal access to water, thereby rendering them dependent on the nexus of politicians, bureaucrats, private vendors and the police, often dubbed as 'the water mafia'. The residents of these illegal settlements, which belong to the poorest inhabitants of Mumbai, have to pay higher prices, which rise during droughts, and walk great distances to obtain minimum amounts of poor quality water.

A group of citizens and the Pani Haq Samiti (right to water committee; PHS) has filed a Public Interest Litigation (PIL) case with the High Court. The basis of the PIL is that this exclusion of citizens from access to water is a denial of the UN Right to Water and Sanitation and the Constitutional Right to Life. The PHS has also raised attention on this topic during election times and at an international level. To date the High Court has not provided a verdict on this case.

Source YUVA, 2011

move away from state-led development towards a market-oriented system has also not yielded the desired results, with only 26 000 households rehabilitated in 2002 (Nijman, 2008). On one side the 1995 cut-off date has resulted into an exclusion of a large section of the slum population. Also, developers are only interested to develop traits of land with high market value thereby excluding a large section of slum pockets (ibid). Furthermore, the rehabilitated population are often not able to pay the high maintenance costs of these new flats; this results into sale of the apartments to wealthier individuals or a rapid demise of the buildings. For example, in a recent documentary "Vertical City" it is portrayed how several of the first rehabilitation flats which were built on a hill, do not have access to water because of lack of pressure in the water system. As the electricity bills are unpaid the flats also lack working elevators. There are also reports of threats and extortions as rehabilitation schemes require a certain percentage of consent (usually 70%) among the households in order for a project to go ahead. In some cases this consent has been obtained with the help of intimidation, also from the police (see for example DNA, 2012).

Box 3.5 The Development Plan

The Development Plan (DP) is an urban planning tool made compulsory under the Maharashtra Regional and Town Planning Act of 1966. This states that every municipal corporation must prepare a DP for the course of twenty years. In Mumbai such a plan was devised in 1981 and adopted only thirteen years later, in 1994. A new DP for the next twenty years will need to be prepared and ratified by 2014. (Bhide, 2010)

The DP defines land reservations, public service, flood prone areas and transportation networks through a coloured land-use map of the entire city; a so-called existing land use (ELU) map. The Municipal Corporation of Greater Mumbai (MCGM) has selected a French consultant to prepare this plan. The ELU map was prepared over the course of three months only using satellite images leading to a vast array of inaccuracies. (Dalvi, 2012)

Although planned development has rarely been implemented in Mumbai, the DP has a legal dimension as it sets land use norms throughout the city. In the past the DP has been used to justify slum evictions in order to construct roads. In this sense the DP becomes very real. It becomes a Leviathan's sword over the fate of a slum (Bhide, 2010)

Slums are not planned but rather places of struggles, states Bhide (2010); therefore the slum and the DP originate from different epistemologies, yet they inhabit the same city. Various areas, including a great deal of slums are not mapped on the ELU map; they are grey zones merely referred to in the legend as SPA. This means that these areas fall under the Special Planning Authority (SPA) of the Mumbai Metropolitan Regional Development Authority (MMRDA), giving this authority the power to develop these areas outside the public decision making realm. These maps depict exactly the realities that the municipality and the developers seek to produces: slums as empty spaces waiting to be turned into high-value residential areas and business parks (cf. Anand, 2011b).

ELU maps available through http://www.udri.org/images/elu/ *(accessed on 25-3-2013)*

Another factor of importance is that this policy only applies to Municipal and State land, not Central government land; the exemption of Central government land from all Maharashtra state policies is recorded in the Maharashtra Slum Areas (Improvement, Clearance And Redevelopment) Act of 1971. Any settlements on these lands, which include those of the Railways department, do not get any basic service provisioning from state of Maharashtra.

In 2003 a report came out named "Vision Mumbai – Transforming Mumbai into a world-class city". This report was commissioned by Bombay First, a think-tank born out of a partnership of major industries and business houses in Mumbai; the study was conducted by McKinsey, an international consultancy company. This pro-

business report set out the vision of transforming Mumbai into a "world-class" city like Shanghai. This was picked up by politicians and also India's Congress party prime minister who promoted this plan in the September 2004 state elections. Shortly after these elections, which were won by Congress in Maharashtra, a series of brutal evictions followed from October 2004 to January 2005 to make space for these plans. More than 300 000 people were displaced during this demolition wave (Bhide, 2009; Gandy 2008). This is exemplary of what Gilbert (2007) points out when stating that the UN's "Cities without Slums" campaign has probably led to a wave of demolitions throughout the World, albeit unintentionally. He argues that the very word slum lies at the basis of ill-defined policy.

3.3 CONCLUSION

In this chapter the object of the 'slum' has been introduced through a series of definitions, discourses, historical events, policies and interventions. We can see that this limited view of looking at the slum from an outsider's perspective already allows for various ways in which slums are 'known' and 'done'.

This chapter has described how discourse plays a big role in enacting a slum. First of all, just the use of the value-laden word 'slum' already evokes Victorian notions of filth, crime, disease and misery (Gilbert, 2007). Second, the official definitions used by international institutions and the Indian government to describe slum areas for statistical and policy purposes are also very much along the same lines. Slum areas are typically defined by crowdedness, building materials of residences and their lack of services (e.g. water and sanitation), which in turn are clearly linked to notions of hygiene. These discourses help to support the idea of slums as the result of uncontrolled urbanisation, thereby denying the link between slums and the city's perennial need of cheap labour as well as the existence of original settlements.

When looking closer we see that, at least in Mumbai, there is great variety in types, origins and land-ownership of so-called slums. Nevertheless, also here there is a great focus on the availability of water and sanitation services. Events like the plague outbreak of 1896 have been attributed to the presence of these poor urban areas and used as a reason to demolish these in order to 'beautify the city'. These attempts of urban development, which have been repeated over and over again, have continuously resulted in evictions of those living in the informal settlements.

In fact, Indian state policies concerning slums appear to be two-faced. On the one hand there are various schemes, the latest being the Rajiv Awas Yojna, to improve the lives of those living in slums. However, these policies regularly fail to achieve the desired effect. On the other hand, there are also mass-evictions and displacements that take place, also as a result of legal ruling or infrastructural projects. These evictions are justified by the use the same rhetoric of 'beautifying the city' used by the British in the early 20th century, now under the credo of 'creating a world-class city'.

In Mumbai these double-dealings of the state are clearly seen in relation to tenure security and legal water provision. The state is strict on 'illegal' slums on one side, but political parties regularly legalize new settlements in order to woo voters. Much in the same way, water is officially not or under-supplied to slum areas, but the municipal water company sells the water to water trucks which service this area for a multitude of the price (*cf.* Swyngedouw, 2004) or allows illegal connections to come up (Anand, 2011).

This chapter also describes how various housing policies in Mumbai have acted as perverse incentives that have actually stimulated the growth of slums over the years. Two groups of people that have benefitted from the presence of slums in Mumbai have been landowners, who have seen the value of their land increase over the course of time, and politicians which have been able to cultivate vote-banks of electoral support. Newer market-based housing policies have also failed to materialise into large scale improvements for the urban poor, as these are relocated to areas and housing facilities without taking into consideration the livelihoods and the ability of these people to pay (formal) maintenance fees.

The clash of different ways of enacting a slum becomes very clear in these relocation, 'development' or 'improvement' efforts. In the new development maps of the municipality, slums are conveniently left as blank spots on the map. This allows for blind redevelopment to take place, without taking into account what is already there. In a way 'not knowing' (or at least not representing) becomes a political choice (Anand, 2011). The following intermezzo based on Dharavi, 'Asia's largest slum', will provide a further example of the clash between different epistemologies and ontologies.

INTERMEZZO: DHARAVI AND ITS REDEVELOPMENT

If one wishes to study and write about slums, especially in Mumbai, there is no way to 'get around' Dharavi. This area, often labelled as 'Asia's largest slum', is very prominent in the debate on slums, how they are seen, their redevelopment and alternatives that emerge. Besides that, it is a place of urban legends, some nice and some gruesome, that in turn shape how the rest of the city and the world sees Dharavi. The movie 'Slumdog Millionaire' turned Dharavi into an international attraction and touristic tours of the area are a common sight nowadays.

In this intermezzo I will explore some of the old and recent history of this central part of Mumbai. Doing so, will allow me to relate my own research to the debate on slums as it is taking place in Mumbai and around the world. Furthermore, it only seems fair to include my view on Dharavi, as my views on slums have also been informed by much of the literature available on this stretch of land in central Mumbai. I've labelled this section an 'intermezzo' as it will be too large to fit in a 'box' but too short to turn it into a chapter. It also provides a nice break in the chapter between the 'slums' as they emerge from policy and literature analysis and those that come forward from my own field observations and experiences. As my research site was located outside of Dharavi (though close by), I have not spent much time there and therefore writing a full chapter would seem pretentious. Specifically this intermezzo will focus on the history of Dharavi, the redevelopment project and the resistance that emerged as a result of it. This leads to questions on the emergence of powerful actors through this struggle and the knowledge production from these that shape for a large extent how slums (and their redevelopment) are portrayed around the World.

Dharavi's history

The history of Dharavi is interesting as it runs parallel to the colonial and post-colonial history of the city. It is the tale of the emergence and development of 'the megaslum'; it tells of the other side of the colonial regime and shows the not always glorious picture of the post-colonial dream. In the recent past Dharavi has also witnessed brutal violence and is now threatened to disappear under the pressure of rising land prices and the ever-increasing 'development' of Mumbai.[15]

Dharavi is first mentioned in 1909 in the *Gazetteer of Bombay City and Island as* one of the 'Koliwadas' (or fishing communities) of Bombay. The Kolis, the fisher folk, lived Mahim creek which separated Salsette Island from the seven original islands, that later were merged into one Bombay Island through reclamations in the 18th-19th century. A dam located at Sion (see figure below) facilitated the process as, from a fishing village in a swampy marshland, land also emerged that would become Dharavi. The growth of Bombay is also Dharavi's story as people migrated from all over the country to settle, practising their trade to earn money for their family back in their village. Leather tanners from the Maharashtra's Konkan, but also potters from Saurashtra, tanners and sweetmakers from Tamil Nadu and embroidery workers from Uttar Pradesh all settled over the course of time. Evictions from South Bombay also pushed people to Dharavi as this was considered the outer edge of the city at the time; this area was therefore considered to be suitable for polluting activities such as tanneries and pottery. Slowly but surely out of the marshlands, through the work and hardship of all these settlers,

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15   This section is based mostly on Kalpana Sharma's great book "Rediscovering Dharavi - Stories from Asia's Largest Slum" (2000)

an area emerged which is now located in the heart of Mumbai. Curiously enough Dharavi is also heart-shaped as it is sandwiched between two of the city's arteries, the Western and Central (Suburban) Railway lines and confined to the North by the Mahim-Sion Link Road.

FIGURE 9: DHARAVI, LOCATED CENTRALLY IN MUMBAI (SPARC AND KRVIA, 2010); P11

It is questionable whether one can speak of 'a Dharavi', as all immigrants and their kin that have come in their wake have settled in a patchwork of various communities and townships (*nagars*) that are divided by region, trade (and thus caste) or religion. Some of these live together and sometimes isolated; after the 1992-1993 communal riots which saw the death of 900 people, patterns of coexistence have rigorously changed within Dharavi. Although the scars remain from this brutal period, people have picked up again and their industries have continued to flourish in the one room apartments. (Sharma, 2000; Nijman, 2009)

Redeveloping Dharavi

Listing the history and heterogeneity of people and businesses in Dharavi has become a political tool since plans have been made to 'redevelop' Dharavi. This data is used by those who oppose current development plans to demonstrate that Dharavi is not just a *tabula rasa* with a collective of people living in a small space. Acknowledging the spatial dynamics of region, religion, caste and trade as a logic of how the *nagars* are set up, is used to demonstrate that the area cannot 'just be developed' and the inhabitants relocated. Listing the economic importance of all the scrap dealers, sweet makers, leather industry and countless other activities that supply the city, country and even export over the world becomes a plea for not destroying any of the social fabric that keeps this industrial hub alive.

The first attempt to 'redevelop' Dharavi was initiated in 1985, when the then Prime Minister Rajiv Gandhi visited the area during the Congress Party centenary celebrations and released Rs 100 crore[16] for Bombay of which a large part was meant for Dharavi (Sharma, 2000). It appears that this effort

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[16] 1 crore = 10 million

"failed to change the nature and overall character of Dharavi", despite some improvements and limited housing construction (Patel and Apurtham, 2007; p 501). The current scheme introduced in 2004, the Dharavi Redevelopment Project (DRP), consists of dividing Dharavi into five sectors which will be developed by international companies that emerge as winners of public bidding procedures (Patel and Apurtham 2007). This $2 billion plan has provoked opposition from those that claim it is not taking the resident (poor) population into consideration (Patel and Apurtham 2007). In consequence this has triggered the consultant developer of the plan to take a more participatory approach of the DRP (Weinstein, 2009). Even if some original elements, such as a golf course have been omitted from the DRP, the plan is still highly modernistic in nature. As land prices in central Mumbai have soared and the nearby located Bandra-Kurla Complex is the most expensive real estate in the city, it became clear to many that the wish to develop Dharavi was not motivated by a desire to house the poor. Interestingly enough, a similar modernist development project in the 1920s, the Back Bay reclamation, was sold to the general public as reclaiming land to house the poor. This project led to fierce nationalist opposition from K.F Nariman and was eventually abandoned (Prakash, 2010).

The DRP and its resistance: actors and networks

The DRP was designed by Mukesh Mehta, a non-resident Indian (NRI), who later became the project consultant when the DRP was approved by the State government. This approval came five years after the plan was devised, but shortly after the (in)famous "Vision Mumbai - Transforming Mumbai into a world-class city" (Bombay First and McKinsey, 2003) came out; this report also led to a wave of demolitions in 2004 where 50,000 houses were destroyed. The State government appointed the Maharashtra Housing and Area Development Authority (MHADA) to develop sector 5 of the DRP. This sector has become the first area to be developed according to the DRP, it is in fact a 'showcase' for the DRP.

Two main resistance nodes have emerged against the plan that claim to speak on behalf of the inhabitants of Dharavi; one is politically motivated, the other appears to be more structurally concerned for the poor, but is also under scrutiny. The first named *Dharavi Bachao Andolan* (or *Dharavi Bachao Simiti* in Weinstein, 2009) appears to be a collection of residents that does not agree with the plan in its current form and want to be involved in the decision making process; another point of concern is the size of the apartments the residents will receive in exchange for the land on which their huts are currently located. This is now set to 225 square feet, but the residents want at least 400 square feet (Weinstein, 2009). Although these demands seem very valid there are also those who say that the *Dharavi Bachao Andolan* was set up by Shiv Sena and Left parties to undermine the DRP taking place in its current form, as this plan is being pushed by the Congress government at State level (DNA, 2012b). It is not uncommon that citizens' group strategically ally themselves with political parties to achieve their goals and this is probably also the case here; this is borne out by Weinstein describing a demonstration by *Dharavi Bachao Andolan* which was frequented by all party representatives except for those from Congress (Weinstein, 2009)

Another opposing party is the Society for the Promotion of Area Resource Centres (SPARC). This world-famous NGO works together with a slum-based women's group Mahila Milan and the National Slum Dwellers Federation (NSDF) in the so-called 'Alliance'. They propose what they name a 'people-centred development' (Arputham, 2008). Dharavi has also become for them a 'community of practice' (Latour 1987) on how to realise such a type of development. SPARC has managed to build an

extensive network that is actively shaping knowledge on slums. They are active in the Commitee of Experts (CoE) that opposes the DRP and have proposed a different plan together with the Kamala Raheja Vidyanidhi Institute of Architecture (KRVIA) called "Re-Dharavi" (SPARC and KRVIA, 2010). SPARC has also launched the international federation called Slum/Shack Dwellers International (SDI) through which they participate in international fora and work together with international institutions such as the World Bank. SPARC's director Sheela Patel, NDSF's director Jockin Apurtham and SPARC member Sandar Burra regularly publish in 'Environment and Urbanization' (an academic journal edited by the International Institute for Environment and Development, IIED). A great deal of knowledge on slums, especially in Mumbai, is therefore shaped through the work of the Alliance. Furthermore, Kalpana Sharma, the author of the best-seller "Rediscovering Dharavi - Stories from Asia's Largest Slum" (2000) sits on the board of SPARC. Other influential academic thinkers and writers about slums, such as Appurdai and Nijman have also closely cooperated with SPARC.

Although all the above hail SPARC's approach (cs Appurdai's 'Deep Democracy' from 2001), there are also critical voices to be heard, especially regarding SPARC's non-confrontational approach and their cooperation with the State and World Bank as developers of community toilets (McFarlane 2004; Roy, 2009; (Sharma and Bhide, 2005)).[17] These critiques revolve around the approach chosen by the Alliance of co-operating with the both the state and market. By doing so, it is argued that the Alliance becomes *de facto* a super-developer (Sharma and Bhide, 2005) which has come to stand for civil society despite being a single organisation (Sharma and Bhide, 2005, McFarlane, 2008).

The SPARC-led networks have appeared to be effective in their work as progress in sector five of the DRP has come to a halt (DNA, 2012a, b, c). Unfortunately for the inhabitants the DRP has also been accompanied by a construction ban and maintenance stop in Dharavi[18], meaning that although any resistance to the DRP may come from good intentions, the outcome of the delay is that no repairs are being done on any of the existing infrastructure or constructions.

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[17] It only seems fair to say here that although repeated attempts were taken to contact SPARC, they chose not to reply to me after I declared that I only wished to interview them and not work with them for this thesis project.

[18] Interview with Matias Echanove of URBZ on 9-11-2012

CHAPTER 4: THE SLUM FROM INSIDE OUT

After a short intermezzo on Dharavi, in which the clash of different ways of 'knowing' and 'doing' slums has been illustrated, I continue in this chapter to further describe various enactments of slums. The previous chapter left us at the citywide level; this one will go further and focus in at the neighbourhood level. What will become clear throughout this chapter is that even at a very local level it is possible to have various ways of enacting a slum. These different knowledges will also lead to different materialisations, as hopefully will become clear towards the end.

This chapter is based on my findings in, and background data obtained on, the research area on which this thesis is based. Garib Nagar, which has shortly been introduced in the first chapter, is an intriguing area as will become clear from the text below. The variety of events closely related to this small settlement[19], have not only shaped this area in a social and physical way, but also introduced a whole array of actors (including myself) which also mingle with the neighbourhood's affairs. The variety of people of (and related to) the area and their interests in this place, gives shape to a 'multiple' Garib Nagar.

I will start off by describing Garib Nagar in detail through the use of socio-economic profiling common to various (non-) governmental organisations working in Mumbai (section 4.1). A deeper understanding of the research area will be provided by touching upon the internal and external politics that occur in the area the role these play in perpetuating the slum status (section 4.2); this part will be based on my own experiences and field work. Subsequently different alternative visions on 'improving the situation' will be assessed as well as trying to understand what these would imply in the future of urban planning (section 4.3). The chapter will end with a conclusion that will bring the 'multiple' Garib Nagars together as they have emerged throughout this chapter (section 4.4).

4.1 PROFILING OF THE RESEARCH AREA

As the research for this thesis was carried out within the auspices of a larger project (*Umeed*), an extensive amount of data was available about Garib Nagar. In this section an overview of this data will be presented to better understand the slum pocket where the research was located. It also provides an insight on how a slum 'gets done' through socio-economic profiling and the generation of various statistics; I will later to this style as the mainstream-NGO' description of a slum area. As such, the writing style of this section is completely different from the other parts of this chapter, this is intentional. In this way I hope to illustrate how the reports used as sources are composed and how this influences the image of the slum to the reader. In fact the 'translation' of a slum into indicators is a common activity of many NGOs, as they are obliged to show progress to funding partners. However, as I hope will become clear from this section, in this process of 'translation' a new object emerges; one where problems are emphasised, and where socio-economic indicators leave no space for socio-political analysis.

Various studies have been carried out in the past by *Umeed*: one study from 2009 focuses specifically on Garib Nagar (Plan and GfK, 2009); another report from 2009 provides segregated data from three different localities (Plan and SRI, 2009); a third report from 2011, of which the separate dataset for Garib Nagar was obtained, provides data from three communities (Umeed, 2011); a small questionnaire was also carried out within this thesis research, also these results are presented here. As the *Umeed* project focuses on children, the three reports mentioned above only consider the households living in the area with at least one child below 18; temporary (male) migrant labour residing in Garib Nagar was not considered for these studies. There is thus probably a positive bias regarding the availability of environmental services, especially if one considers that

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[19] Garib Nagar was the living place of two of the child actors of "Slumdog Millionaire" which led to a large donation from the movie director to improve the area; this is where how the *Umeed* project started off (thorugh which I worked in the area). The area was also destroyed by a large fire in 2011 and has been severely flooded on various occasions, which also led to other donations coming in.

tenants usually do not have access to private services and thus have to share with the main household. Despite this omittency, the available data still provides an interesting picture to consider. Another aspect to consider is the fact that the reports from 2009 provide data before the large fire that destroyed the whole community; although a large numbers of families have returned after this event, many have also left.

Lastly I would like to mention that I have made a selection of the data to report, according to what is relevant to this thesis. The cited reports focus to a large extent also on infectious diseases (e.g. tuberculosis, HIV/AIDS) and household violence. Although these topics are extremely relevant to the area, I have chosen to omit these to keep the data provided in this chapter within reasonable limits.

4.1.1 DEMOGRAPHIC DATA

In 2009 310 households having at least one child below 18 years were identified in Garib Nagar; in 2011 437 households were surveyed. The tables below show a profile of the households in the community from the 2009 reports:

TABLE 8: DEMOGRAPHIC PROFILE OF THE HOUSEHOLDS (PLAN AND GFK, 2009)

Parameter		Number	Percentage
Type of Family	Nuclear	245	79
	Joint	65	21
Religion	Hindu	12	4
	Muslim	291	94
	Christian	6	2
	Sikh	1	0.3
Caste	Scheduled Caste	16	5
	Scheduled Tribe	11	4
	Other Backward Caste	67	22
	None of them	216	70
Total numbers of households surveyed		**310**	**100**

The overwhelming majority of inhabitants are Muslim. The area in which Garib Nagar is located, Bandra East, has historically been predominantly Muslim. In the 18th century, Muslims belonging to the Konkan region[20] had migrated and settled in the eastern part of Bandra.

TABLE 9: SOCIO-ECONOMIC STATUS OF THE HOUSEHOLDS (PLAN AND GFK, 2009)

Parameter		Number	Percentage
Poverty Status	Above poverty line	195	63
	Below poverty line	58	19
	Don't know	57	18
Ownership of House	Own	195	63
	Rented	58	19
	No response	57	18
Total numbers of households surveyed		**310**	**100**

TABLE 10: SEX RATIO IN POPULATION (PLAN AND GFK, 2009)

Parameter	No. of girls in the age group	No. of boys in the group	Sex Ratio
Child Sex Ratio at Birth	18	30	600

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[20] Western coastline of India from Raigad (Maharashtra) to Mangalore (Karnataka)

Child Sex Ratio for 0 -1 year	46	46	1000
Child Sex Ratio for 0 -5 years	132	136	771
General population	400	382	955

Below the number of residents of Garib Nagar from the 2009 data is segregated by age and gender:

TABLE 11: AGE AND GENDER DISTRIBUTION OF RESIDENTS (PLAN AND GFK, 2009)

Household members	Male (400)	Female(382)
0-6 years	26	25
7-12 years	26	27
13-18 years	29	29
19-25 years	28	23
26-35 years	24	27
36-45 years	23	25
46-55 years	30	17
Above 55 years	28	13

4.1.2 EDUCATION
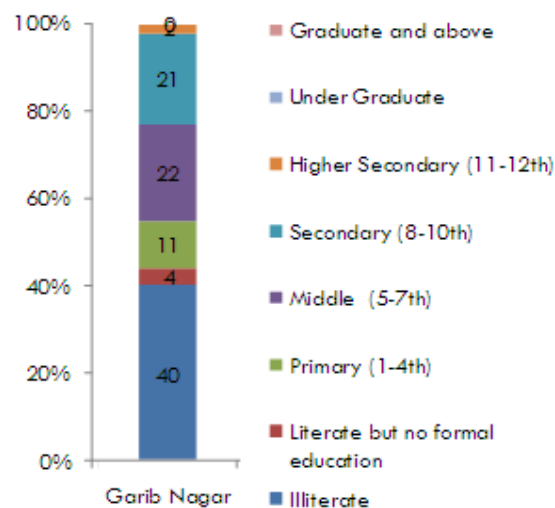
FIGURE 10: EDUCATION LEVEL IN GARIB NAGAR (PLAN AND SRI, 2009)

The vast majority, 81%, of the adult population in 2009 was married; 6% were widowed and 1% was divorced. The educational level is also considered; this can be classified as low, with a large section of illiterates.

4.1.3 ORIGIN AND STAY DURATION

The average stay in the neighbourhood is 13 years; the figure below shows a more differentiated picture.
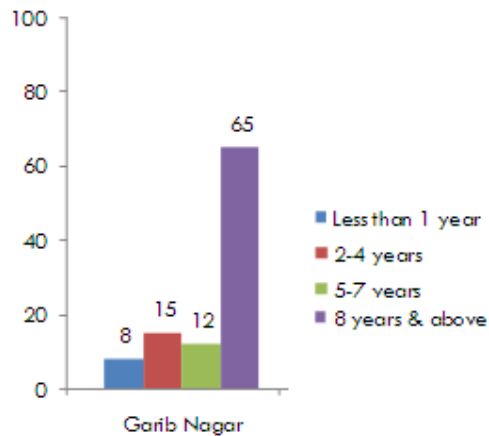
FIGURE 11: HOUSEHOLD STAY IN NEIGHBOURHOOD (PLAN AND SRI, 2009)

Considered in average with two adjacent slum communities, it is reported that the two-thirds have not stayed in a slum before; the one third that did, had stayed on average in two different slums before.

Also the data of origin is unsegregated for the three communities; the figure below shows the state of origin for the inhabitants from these three communities:
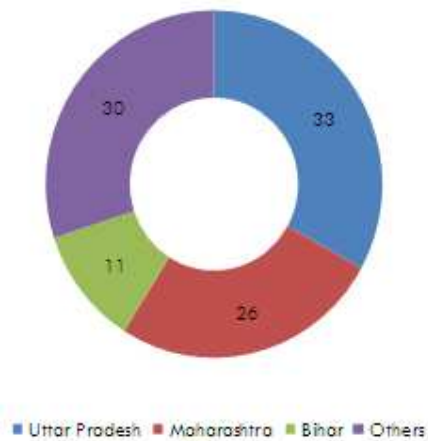
FIGURE 12: ORIGIN OF INHABITANTS OF GARIB NAGAR AND TWO ADJACIENT COMMUNITIES (PLAN AND SRI, 2009)

One-third of the respondents were reported to have originally belonged to Uttar Pradesh. The source of migration in most cases was Khanpur, Bareli, Lucknow, Faizabad, Gorakhpur. Other places from where respondents from UP migrated were Rampur, Aligarh, Gonda, Meerut, Bijnor and Amethi. Almost one-fourth (26%) of the respondents reported that their native place was Maharashtra. These had migrated from Kolhapur, Solapur, Chiplun, Osmanabad, Ratnagiri, Aurangabad and Pune. One in nine (11%) respondents reported that their native place was Bihar, primarily from Patna and Darbhanga. Other native places include Karnataka, Hyderabad, Delhi, Kerala, Gujrat, Tamil Nadu, Madhya Pradesh, Orissa, Assam, Andhra Pradesh and Goa. (Plan and SRI, 2009)

4.1.4 EMPLOYMENT AND INCOME

The overwhelming majority (96%) of those employed in Garib Nagar work in the so-called unorganized sector, or informal economy. Most of these jobs involve long working hours; men who work as tailors in Garib Nagar reported that they generally work 10-12 hours in a day. The working conditions are also poor as three-four men work in one tiny room. (Plan and SRI, 2009)

TABLE 12: MAIN OCCUPATION OF THE HOUSEHOLD (PLAN AND SRI, 2009)

BASE : All employed adults	191
Tailor	18%
Labourer employed on a monthly basis	13%
Petty traders	15%
Domestic help	12%
Daily wage labourer	9%
Hosiery	6%
Car driver	4%
Employed in regular job	4%
Autorikshaw driver	3%
Shopkeeper	5%
Others (this includes construction worker, hawker, cleaner, safai karamchari/sweeper, food vendor, security guard, factory worker, self-owned tea shop, locksmith, milkman and newspaper person)	13%

In Garib Nagar the average per capita household income was found to be Rs. 865; or an average household income of Rs. 6055. Compared to the two adjacent communities, the residents Garib Nagar were found to be less wealthy; 77% of the poorest 20% of the three areas lived in Garib Nagar. On average, only one in ten had a bank account and 21% of the inhabitants of the three communities had savings. In Garib Nagar 34% of the respondents were in debt; for example, this can be a loan taken for the wedding of a girl daughter. (Plan and SRI, 2009)

4.1.5 ENTITLEMENTS

The majority of the residents, 63% in Garib Nagar, had a welfare scheme card such as a BPL card or Antodaya card[21]; this number was higher in the adjacent communities. Interestingly enough it was found that a in the poorest quintile a higher proportion of the residents do not have such a welfare card. (ibid)
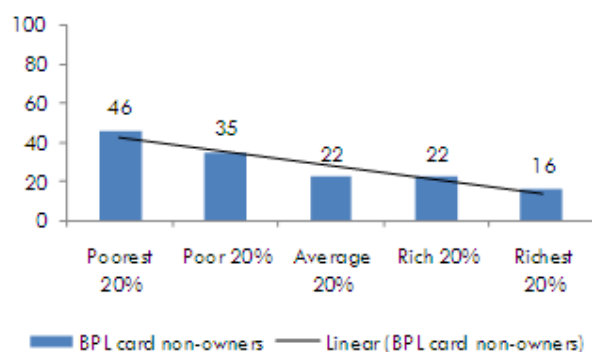
FIGURE 13: PROPORTION OF RESIDENTS WHO DO NOT HAVE A BPL-CARD (PLAN AND SRI, 2009)

These welfare cards are also dependent on the ability of being able to produce some form of identity proof like a PAN card[22], Adhaar card[23], Voter ID etc. These Social entitlements are very important and sometimes it is very

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[21] These cards allow for the holder to get subsidised rations of goods such as grains and LPG.

difficult for the marginalized people to obtain these entitlements. *Umeed* also works on this and assists people to obtain these entitlements. Over half of the population aged 18 years or more has PAN card; only 65% of the people have a birth certificate. Many people also reported that they lost their entitlement documents in the large fire that broke out in 2011; some have applied again to get these documents. (ibid)

4.1.6 HOUSE/DWELLING

In India houses are typically divided in three categories: *pucca* (meaning solid/permanenent), *semi-pucca* and *kutcha* (meaning unfinished/makeshift). These are usually defined by characterising the type of house structure and the composition of the roof:

1) **Pucca** houses are houses where both the walls and roof were made of cement/ concrete/ stone/ bricks.

2) **Semi-pucca** houses are that which either wall or roof is made of pucca material while the other is made of makeshift materials.

3) **Kutcha** houses are defined as houses which both walls and roof are made out of bamboo/ mud/ grass/ leaves/ thatch/ un-burnt bricks/ plastic/ loosely packed stones, which are broadly speaking known as makeshift materials.

The table below gives a breakdown of the types of structures; this is from before the fire of 2011 however.

TABLE 13: HOUSEHOLD AND ROOF TYPE (PLAN AND SRI, 2009)

	Garib Nagar
BASE : All respondents	**120**
Pucca household	7
Semi-pucca household	16
Kutcha household	77
Asbestos roof	2
Plastic roof	1
Tin roof	92
Concrete roof	8

Most houses were single storey houses (Ground+1 construction); 80% of the houses were single-room houses in which, on average, 7 people live (Plan and SRI, 2009).

In Garib Nagar, 66% lived in their own house, while 34% were renting (Plan and SRI, 2009); in our survey this was 59% and 41%. Typically speaking, those who live in rented houses represent the poorest of the urban poor. This was also affirmed by the 2009 study as the proportion of respondents who live in their own houses and whose household income is less than Rs. 3,000 was found to be 6%. Contrarily, the proportion of respondents living on rent and whose household income is less than Rs. 3,000 is more than double (14%). The difference was found to be statistically significant at the 95% confidence level. (Plan and SRI, 2009)

4.1.7 ELECTRICITY

In Garib Nagar, 97% of the respondents used electricity as their main source of lighting; kerosene was reported by 3% of the respondents. At the time of the study in 2009 98% of the respondents reported to get electricity from an authorized agency such as a municipal body and paid money for this service; 2% respondents reported that they used an unauthorized electric connection. I did not research this aspect during my stay, but I have

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[22] Personal Acoount Number; required for income tax
[23] Proof of identity and residence in India

seen both legal as illegal connections in the area. Some of the youth group members are also electrician and have access to the electricity boxes(Plan and SRI, 2009)

4.1.8 WATER

In 2009 77% reported that their water source came from the tap; that is piped to the point of collection (Plan and SRI, 2009). In 2011 this number had gone up to 96% (Umeed, 2011). Most access points (93% in 2009) are outside the house. Some people have a booster pump, for example if they live on a higher floor. In our own survey we found that 53% had an individual tap, while 46% of the respondents shared with their neighbours. As the initial cost of application for a tap is very high, a number of people get together and apply for a BMC water connection. The water bill is then shared amongst those who participate and ask rent from others that take water.

Most residents say that this water is safe and clean (90% in 2011); this was confirmed by our own findings. It is reported that sometimes (more or less once a month) the water quality is bad; then the residents let it flow for a while.

4.1.9 TOILETS

As mentioned before the large fire of 2011 destroyed the community toilet in the area. However, even before the fire not all were using that facility, as shown below in table 7.

TABLE 14: AVAILABLE TOILET TYPES (PLAN AND SRI, 2009)

Parameter		Number	Percentage
Toilet Facility Available	Pit	18	6
	Septic Tank	1	0.3
	Dry (Ecosan)	0	0
	Sewer line connection	1	0.3
	Public toilet (pay-per-use)	227	73
	Community toilet	63	20
Total numbers of households surveyed		**310**	**100**

Thus, while the wide majority (93%) use public or communal toilets, there are some household that are illegally attached to the drainage system. It is worth noticing that the public pay-per-use toilets also discharge in the open drain. We found that the average cost for toilet use per household amounted to Rs. 394, but this is highly inflated as many just calculated an average of one visit per day per household member. However, a large proportion of the residents practice open defecation; in 2009 this was reported to be 20% (Plan and SRI, 2009), but this was for three communities combined. In Garib Nagar this fraction is higher, as a majority of men defecate in the open.

4.1.10 DRAINAGE AND WATERLOGGING

Drainage is also an issue of importance of the area. In 2009, 89% of the respondents reported waterlogging problems during monsoon period (Plan and SRI, 2009). Household drainage also differs, as shown below in table 8.

TABLE 15: DRAINAGE TYPE IN GARIB NAGAR (PLAN AND SRI, 2009)

	Garib Nagar
BASE : All respondents	**120**
Underground drainage	53
Covered pucca drain	18
Open kutcha drain	18
Open pucca drain	11

No drainage system	1

4.1.11 SOLID WASTE MANAGEMENT

An institutionalised garbage collection system appeared to be completely absent during my stay in 2012, previously however, it seems that there was some form of a collection service in place, as shown in table 9. However, even in those days the frequency of the disposal facilities was poor (see table 10).

TABLE 16: WASTE DISPOSAL SYSTEMS (PLAN AND SRI, 2009)

	Garib Nagar
BASE : All respondents reporting some arrangements for garbage disposal	**99**
Municipality collects garbage	32
Throw it to a municipality bin nearby the railway tracks	54
Residents have made informal arrangements	14

TABLE 17: FREQUENCY OF WASTE DISPOSAL (PLAN AND SRI, 2009)

	Garib Nagar
BASE : All respondents	99
Everyday	13
Once in 2 days	13
Once in 3-7 days	7
Once in 8-15 days	12
Once in 16-30 days	43

4.1.12 DISASTER

The community has also been struck by disaster on various occasions. Even before the large fire of 2011 (see Box 3.6), the residents had already faced their fair share of difficulties. This impacts the whole household such as the education of children, the employment level and even marriages in the family are postponed due to lack of money.

TABLE 18: NATURE OF DISASTER FACED IN LAST FIVE YEARS (PLAN AND SRI, 2009)

	Garib Nagar
BASE : All respondents	120
Eviction	8%
Riots	8%
Flooding	78%
Fire	18%
None of the above	13%

4.2 SLUM POLITICS

In a city with over 8 million inhabitants residing in slums, housing plays an important part in politics. These are not just the official policies but the wheeling and dealing that take place on a daily basis. It is these 'street politics' that allow slums to come up and continue to exist throughout the years. In this section I will mainly elaborate on my own experiences in the field and where possible I will add some references to existing literature on the subject.

4.2.1 EMERGENCE OF A SLUM

Slums emerge with some form of consent from the legal landowner, a local politician or through some other arrangement. On private land it could be because the owner wants to dodge the land ceiling imposed by law (see box 3.2), on government land it could be because the land is seen as unsuitable for development. In some cases it is also unclear to whom the land belongs, as will become clear from my own study area.

The settlement that formed my study area, Garib Nagar, lies just next to one of the busy railway stations on the Western Line, one of the three suburban train services that form the lifelines of the city, transporting almost 7 million commuters on a daily basis. The settlement is enclosed by the railway tracks on one side, a road on another and a vacant swampy area to the South. When the first settlers came there it was also a swampy site. Part of the settlement lies on top of the huge pipeline that carries drinking water from the hinterland all the way to South Mumbai. Some residents told me that this pipe was suspended in the air when they first settled, now it is used to walk on. The ground level has slowly been raised mainly by depositing garbage from construction sites. This is very similar to what Kalpana Sharma describes in her book "Rediscovering Dharavi" (Sharma, 2000). Comparable to what has happened in Dharavi, these slum settlers have reclaimed land from the swamps and mangroves and turned it into suitable construction ground. As the city expanded they are now located in one of the most posh suburbs of the city.

Garib Nagar was settled in 1980-1981. Initially there were only a small number of families living in bamboo huts and tents. The elderly can tell precisely in a chronological order who were the politicians that backed them throughout the years. The first was a Congress MP who carried out a survey of the area and gave them moral support. More families settled as the settlement grew to 131 households. A new Congress MP came who measured the area and divided it into plots. However, it was soon all demolished by the Railways authority. Garib Nagar's inhabitants have been evicted a number of times with the last eviction being in 1988. They kept coming back, despite the fact that they weren't allowed to. The last eviction was stopped by the MP which has been their leader ever since, Sunil Dutt. Even now, after his death, the community supports his daughter who is also a politician. This Congress MP who was also a famous actor stood in front of the bulldozers and told the drivers that they should kill him first before

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Box 4.1 Disaster in the slum

In March 2011 a fire broke out in the settlement, which destroyed the whole area in just three hours. Estimates of the amounts of shacks destroyed vary between 450 and 700 houses.

This incident attracted a lot of attention as the area is known as the residence of the family of two child actors of "Slumdog Millionaire".

Each household was reported to have received Rs. 25,000-30,000 in compensation, made possible by the Congress party. Also private donations and gifts from charity institutions came in from all over the world. Funds and goods were distributed through the two local welfare societies, each headed by the community leaders.

The cause of the fire was never found. Some blamed an electrical short circuit, others said it was a deliberate incident to vacate the land for development purposes. A report of the fire department was not able to provide any clarity on the matter.

It was not the first time that disaster struck in the community. In the 2005 floods, many saw their houses completely flooded. The compensation money after that incident amounted to Rs. 10,000 according to a resident.

going ahead with demolition. It goes without saying that this dramatic gesture won the community's unconditional support. Given the community's overwhelming Muslim population, it's not so strange that they affiliate themselves with Congress, as this political party has always had a secular agenda. Besides that, Sunil Dutt was also married to a Muslim actress. The son of the couple and the current MP's couple has been arrested and convicted as accomplice in the 1993 blasts organised by Muslim terrorists.

4.2.2 DIVIDED COMMUNITY

The support for Congress is not self-evident however. Despite its small geographical area, the community is divided into two 'factions'. Over the settlement there is a skywalk bridge; these types of bridges can be found on both sides of each railway station, they are meant for pedestrians to walk over the street and avoid the busy traffic. The bridge forms more or less the line of division, which is mainly caused by the presence of two 'leaders'. These two leaders, or 'slumlords' in another perspective, each control a certain area. They also affiliate themselves with different political parties; it is these leaders that will have contacts with party workers, which in turn will be in contact with the politicians. One of the two leaders provided electricity to the area's inhabitants and is therefore known as *lightwallah*. The other, who is known as *mobilewallah* because he used to steal and sell phones, is active in construction, which also gives him an important position in the community. Interestingly enough, the community is not only divided in two leaders, there are also two youth groups and there were also two women's groups in the past.

If one thinks of control in a slum settlement, the thought may come to mind that this is done through threats, violence and extortion. Although there will have undoubtedly been incidents in the past that were not described to me, control of an area seems to be mainly achieved through dependence on all sorts of activities. Both leaders have various properties which they rent out; services, such as the construction of drainage canals and laying water pipes, are also negotiated by these leaders with politicians; water bills in the community are paid to five different people, each serving a different area, two of these are the community's leaders; when the communal toilet block inside the settlement was still functional, monthly fees were paid to one of the leader's family who arranged for cleaners to come.

It thus seems that these two leaders are in this position of power because of their ability to manage and deliver all kinds of services. This doesn't mean that this is done in a legal way or that all inhabitants are content with their leadership. Both leaders have also had their fallouts with each other and their encounters with the judiciary system. At the time of research one was hiding because he was wanted by the police, while the other just came back after being banned from the area for a while by the criminal court. The use of violence by Mumbai's 'slumlords' has been investigated in popular literature (Mehta, 2005) and academic literature (Hansen, 2001). It seems that a performative display of violence is crucial to holding power in such a community, which also applies to the city in general (ibid).

This division of Garib Nagar also plays a role between community members. In some cases they are deliberately put one against the other, this is often done by spreading rumours. The power of rumours in the community is quite substantial, it can actually

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Box 4.2 Negative portrayal of the research area in the media

On the second day of my stay in India, I accidently witnessed the unfolding of a violent episode near the city's main train station Chhatrapati Shivaji Terminus (CST; formerly known as Victoria Terminus or VT). A demonstration against the persecution of the Muslim population in Assam and the government's inaction on this affair brought a large crowd to Azad Maidan near CST. This event quickly escalated as several buses and media vans were lit in flames. The police reacted by firing shots, thereby killing two protesters.

One of the men killed was from the same community as the research area; he was also the nephew of one of the community leaders according to local newspapers. This leader was described in these papers as one of the architects behind the riots together with an immigrant from Myanmar living in the same area and working at the community's mosque.

The riots continued to gain attention, as SMS messages were spread stating that Muslims would take revenge on non-Muslim from the North-East of the country. A vast amount of people from Pune and Bangalore reportedly fled afraid of communal violence. For several days all mobile phones were unable to send more than five SMS messages per day. Thankfully, no riots took place.

become a political tool; see also the case of Annawadi in Boo (2012). In this community rumours seem to be deployed tactically by the 'leaders' to divide the community. Just before the visit of an important politician to the area, some inhabitants started talking about how a part of the settlement was going to be demolished because the skywalk was going to be expanded. It turned out later that the person spreading this story was one of the leaders; he wasn't happy with the interference of the politician in the area[24]. It also seems that this division helps the two men to remain in power. A planned rehabilitation scheme proposed by the Congress party in exchange for election votes, was abandoned as the community did not vote as a block. The rehabilitation would have meant that all home owners would have received a free apartment of 225 square feet. (20,9 m^2), however this was limited to one apartment per household. This meant that while many would have benefited, those with several properties (i.e. the leaders) would have lost more than they stood to gain.

4.2.3 NEGOTIATING SERVICES

When it comes to negotiating services for the area slum dwellers are in a weak position, as they are considered illegal residents. They therefore rely on political networks and "pressure". As it will become clear from chapter 5 when the case will be explained of obtaining sanitation services in the area, the actual process of negotiating services is a long and cumbersome one. It is not just an exchange of votes for services. It is an effort over a period of time that ties a powerful person or group in the community to the political party and its party workers. Tactical games are played on both sides.

Box 4.3 Religious politics and service provision

Service provision in the slums is heavily influenced by religion and the role this plays in party politics. Muslims of Mumbai have traditionally voted Congress, as it stands for a secular state, while Hindu conservatives mainly vote BJP (Bharatiya Janata Party) or Shiv Sena; a plethora of smaller parties can also be found, each with their niche electorate.

Contractor (2012) describes an area of Shivaji Nagar, a Muslim neighbourhood that is systematically excluded from water based on their "Muslimness". Access to water is denied based on discriminatory discourses such as notions of filth, criminality and terrorism, as well as practices of delivering water at night, resulting in the fact that leaks are never found and remain unrepaired. Being at the periphery of the city (as a result of spatial discrimination) results in further segregation in the form of denial of piped water. Even when voting for a pro-Muslim party other than Congress, the residents still have to rely on tanker trucks to deliver water as the Shiv Sena's dominance in the city council hinders progress for Muslim neighbourhood.

Anand (2012) shows how a different Muslim neighbourhood, enclosed within Hindu communities, also faces the same discrimination, as the local politicians are not dependent on the votes of the Muslim settlement. A second-class citizen is created in the process, one which has to rely on well water instead of piped municipal supply.

As Anand (2011a; 2011b) explains, getting water to a slum requires a certain amount of "pressure"; this can be physical hydraulic pressure and political pressure. Political pressure is applied from inhabitants to politicians; politicians apply pressure to the bureaucrats, which in turn deploy the engineers and field staff. In this process there are no hard demands, as it is not the official way of getting water. Often the claims are made on humanitarian basis, where the inhabitants clearly position themselves as victims neglected by the state (see also Chatterjee, 2004; p59-78). For the people of the slum it is the most straightforward way to get water to their house, as they are easily brushed away by the bureaucrats if they try to obtain services the legal way. This

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[24] In chapter 5 this case will be explained in further detail.

is usually done by treating them rudely, asking for a series of documents and filling of forms that hold the process on for an indefinite amount of time.

However, even if done through a politician, obtaining water is not a business-like exchange of money and services. It is a delicate process in which not every politician can be approached and these also cannot just walk into a bureaucrat's office and ask for water for his/her constituency. The people of the area know which politician has the right connections and which one is interested in their cause. As there are municipal councillors, members of legislative authority (MLA) and members of parliament (MP) wanting to be (re-) elected, there is always some politician willing to pick up a community's cause. In the case of my study area, the community seemed to be more in touch with the councillor and the MP, as these were of Congress affiliation. The MLA, a Shiv Sena politician, was not considered approachable, probably because of his party's anti-Muslim stance. Religion plays a major role in party politics in Mumbai and thus also in the provision of services, as explained in Box 4.3.

Once infrastructure is put in place, water still may not flow. In this case the people apply extra pressure, but this time physical, in the form of booster pumps to get water to their house. Water connections are also split further; one legal connection may be divided further to supply a small group of households. Both activities are officially deemed as illegal by BMC, often referred to as the "water mafia". However this masks the fact that for a lot of residents it is the only way of obtaining water (Contractor, 2012); those BMC officials and field staff that easily condemn these activities in public are also well aware of them and facilitate these off the record (Anand, 2011b). This type of "populist politics" has turned many voters, especially from the middle-class, away from electoral politics; they feel that in a country where the poor outnumber them by vast figures and where politicians are all corrupt, it is of no use to vote (see also Chatterjee, 2004). For the "proper citizens", there is no need to exchange votes for services as they can get access to these through the official channels. Besides that, the middle- and high- income groups may be able to afford the necessary bribes to speed up the process to get access to these services. The aversion against the "corrupt politics" became clear to me when I met a banker in a shared taxi from Pune to Mumbai, who told me he only showed up at the voting booth to nullify his vote, so it could not be misused.

4.2.4 CONSTRUCTED ILLEGALITY

This intricate system of denying services officially and providing them in a downgraded manner through unofficial channels relies on the construction of the slum and slumdwellers as different and illegal beings. As I will illustrate further in chapter 5, it is not merely a question of bureaucrats saying "no". A whole series of explanations is given that describe why the slumdwellers are different from 'normal' citizens. I often heard these characterisations made by city officials during my research as well as in middle-class circles when explaining my thesis topic. Some examples of these depictions are: "they are all illegal immigrants from Bangladesh"; "they are villagers"; "they are uneducated"; "they like to live in filth"; "they like to live in a slum, they actually have a flat in Navi Mumbai (a planned city area) which they rent out and they return to the slum"; "if you construct something in a slum, it will be stolen immediately". I believe that these statements are not just ignorant prejudicial beliefs about the urban poor; they are actually deployed in a tactical sense. It seems to me that by constructing the image of slumdwellers as backward, unhygienic, ignorant, criminal and perhaps even foreigners or worse yet terrorist, it becomes easier to justify why these people are not allowed to have the same services as law-abiding, tax-paying citizens. Baviskar argues that these tactics of "disenfranchise […] from civic citizenship" (Baviskar, 2003; p96) on grounds of poverty and communal identities are also deployed in New Delhi.

My point here is not that the non-provision of legal services to a slum community is a deliberate malicious attempt of the middle-class to bully the lower classes. Those seeking cultural-religious explanations will argue that in India inequality is very much accepted as in Hinduism one reincarnates and poverty is therefore a destiny, a result of actions in your past life. Although I have noticed this construction of the 'other' in negative

terms, such as 'the Muslim'; 'the other caste'; 'the non-veg eater' etc., I believe that this explanation is too simple. First of all, non-provision of services in a settlement reduces the legal claims that a community can make on the land on which they live. A water bill is a powerful document in claiming that one lives there for a certain amount of time and therefore has the right to benefits such as resettlement or compensation in case of eviction. Providing legal services is thus in direct contrast to the landowner's benefit. For the municipal corporation, providing legal services to a settlement, means increased responsibility and costs, as these communities can also be physically difficult to reach. If services are provided illegally, there are contributions coming in from the community, which are undoubtedly used to grease a number of palms in the bureaucratic circles. Interestingly enough, in the case of water provision in my community, these costs are lower per household than they would be if a legal connection would be sought; there is also far less bureaucratic hassle involved. The policy of declaring certain communities as illegal (see box 3.3) is thus justified by claiming it this will reduce immigration, complying with the pro-Maharashtra Shiv Sena party discourse; however, on a personal level it also helps field staff and bureaucrats to make extra earnings on the side.

Furthermore, by continuously reaffirming the illegal status of settlements, politically sensitive questions about land distribution are avoided. On one side this concerns the ownership of land. Much of the current land distribution in Mumbai can be traced back to colonial times. This is not challenged in any way; actually land deeds from those times are used as proof in current legal cases. The area near Garib Nagar was contested between the municipality and the Railways department. During my research period a High Court verdict declared that the land belonged to the latter; the verdict was based on maps from 1904 and land records from 1828 (DNA,2011; Mumbai Mirror, 2012). On the other side the lack of discussion on land distribution, facilitated by the discourse of slumdwellers as illegal encroachers, allows developers to treat parcels of land as a *tabula rasa* which can built upon once the land value is high enough. Although rehabilitation and resettlement of slum dwellers has partly arisen through activism and mobilisation (Anand and Rademacher, 2011), that those that live in a slum still have no possibility for legal self-development and own no claim to the land they live on if they do not wish to participate in such a programme. This is also partly reflected in the subtle difference between naming people that live in slum settlements *squatters* or *encroachers*, while those that have overstayed their 99 year lease in South Mumbai are named *occupants*[25].

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[25] Interview with Matias Echanove of URBZ on 9-11-2012

Box 4.4 Popular representations of slums

Despite their ubiquitous presence in the city, most non-slums residents have probably never set foot inside a slum. Mumbai society is very segregated and there is probably no pressing need for somebody from a middle-class area to be in a slum. This means that most ideas about slums are obtained through what is depicted in popular media. During my extensive reading on the subject I have encountered two main themes: slums as places of despair and slums as places of hope.

As already noted above various bestsellers have been written about Mumbai wherein its slums play a prominent role. "Maximum City" (Mehta, 2004) dedicates a whole section on "power", where the writer describes the organised crime, political parties and the police force of the city. The slums feature mainly as a place of ruthless violence in this narrative, a place where a life is not worth much. Katherine Boo's recent "Behind the Beautiful Forevers" (Boo, 2012) is set in Annawadi, a settlement next to the international airport. She describes the slum as a place of violence and despair, mainly inflicted by members of the community on each other. "Slumdog Millionnaire", the world famous Oscar-winning movie also depicts the slum as an area where a life has little value; it depicts the rat-race and fierce competition even amongst brothers. Yet another bestseller "Shantaram" (Roberts, 2003), set in the 1980s Bombay tries hard to depict the slum where the character lives as a warm and caring place; however, it is the images of cholera, rivers of rats and packs of stray dogs in the night that usually stick in the reader's minds.

Other literature, especially the one focusing on Dharavi, is often laden with accounts of economic miracles and stories of "rags to riches". A small booklet named "Poor little rich slum" (Bansal and Gandhi, 2012) is exemplary of this type of literature.

Kalpana Sharm's "Rediscovering Dharavi" (2000) is a more balanced book. While it also contains several examples of economic miracles stories, the writers explain very clearly how these can only happen because of the lack of any labour and environmental regulation. Moreover, Sharma sets the slum in a wider historic context thereby explaining the housing policies of the city.

4.3 ALTERNATIVE VIEWS

In the last four sections I have presented various facets of 'the slum'. I have shown the various discursive elements and material manifestations of the term as well as the contradictory policies that surround the slums. On one hand the state has programmes for the poor, while it also demolishes their house. Slums are considered illegal in official policy, but unofficially they are granted services. The people residing in a slum cannot make a claim on their land, but they are provided compensation in case of disaster. Meanwhile, various policy measures throughout the years meant to get rid of slums have not worked. So what are the ways out of the current situation? In this section I will discuss three different approaches on how to look at slums and improve the conditions therein. The first approach is a cooperative one, where the community works together with the municipality; the second is a conflictive one, where the community holds the municipality accountable for its responsibilities; and the third approach is based on user-generation. These approaches are neither exhaustive nor exclusively the domain of the organisations that I describe. They are merely a reflection of what I came across during my stay in Mumbai and found when consulting the literature on this subject.

4.3.1 COOPERATING WITH THE MUNICIPALITY

This first approach, which I have dubbed the 'co-operative model', is based on allowing communities to participate in shaping their own future. It is spread by an influential NGO named Society for the Promotion of Area Resource Centres (SPARC) which is teamed up in the "Alliance" together with the National Slum Dwellers Federation (NSDF) and *Mahila Milan* (Women Together). Their approach stems from a notion that by allowing

slum dwellers to participate in schemes and programmes of the state (be it municipality, regional or national state) these programmes will not only be far more effective and also cheaper, but it will empower those people when dealing with the State. Examples of these projects are community enumeration and mapping (Arputham, 2012), construction of community toilets (Burra et al., 2003) and slum rehabilitation schemes (Burra, 2005). This approach has been widely acclaimed for making the poor visible and empowering them. It has resulted in the collaboration of the Alliance with the dominant institutions, for example in the Slum Sanitation Programme SPARC worked together with BMC and the World Bank to provide community toilets in Mumbai[26]. A praise of the Alliance's approach can be found in Appurdai's explanation of his concept of "deep democracy" (Appurdai, 2001).

However, there are also organisations that oppose this approach. It suffices to say that when in Mumbai, I noticed that other NGOs were not a big fan of SPARC's work. As NGOs have to compete between each other for funds and projects, there will always be some animosity; there are however also some ideological differences. It was explained to me that as SPARC chose to collaborate with government, it had become an implementer of their policy. This also meant that when collaborating with those in power, SPARC in a sense of *Realpolitik*, has worked with political parties irrespective of their colour (McFarlane, 2004). Others pointed out that SPARC's collaborating role had shifted the organisation's role from advocacy into contracting. More crucially, this approach is critiqued because: *"Through its conception of the poor and social change, and its commitment to non-party alignment, the Alliance is working with symptoms of poverty, in that it is not engaged in radical long-term structural changes in the control of builders and developers over resource distribution in Mumbai. The Alliance is challenging the terms of engagement with authorities, but not the control over urban planning and development that these authorities have."* (McFarlane, 2004; p910)

4.3.2 THE CONFRONTATIONAL APPROACH

The 'confrontational' approach, as I've labelled it, is one that is used by a wide variety of organisations. Here I will focus on my experience with the organisation Youth for Unity and Voluntary Action (YUVA), as I volunteered for this organisation for a couple of months. Although a wide variety of activities of YUVA are not necessarily of a political nature and other organisations, like the ones named above, also carry out similar confrontational activities, this characterisation still reflects my observation from the field.

Housing struggles have a long history in Mumbai (see a historic overview Bhide, 2009; Anand and Rademacher, 2011). Many of these movements have also been agitational with massive protests and hunger strikes. However, this is not what I mean when referring to the confrontational approach. The confrontational approach in my view is one where organisations and popular movements hold the state accountable to its duties. It unmasks the hypocrisy and double-standards of official policies. It also challenges the market-promoting role that the Indian government has taken up since the early 1990s. Examples of this approach are the activities of YUVA and the Pani Haq Samiti (PHS), a platform of citizens and organisations to claim equal rights in access to water for Mumbai's residents of post-1995 settlements; this battle has been brought up to the Bombay High Court (see box 3.4). PHS and YUVA have also exposed the mechanisms of the nexus between the water mafia and the politicians and are actively campaigning against water privatisation in the city. Through consultative stakeholder processes related to the 2014-2034 Development Plan (see Box 3.5), these organisations also hope to influence the decision-making powers to develop alternatives; however, they are also realistic enough to know that this is unlikely to have a large impact[27].

However, one may wonder whether this approach is one that yields a lot of results. As explained by Anand and Rademacher (2011), a wide group of housing activists has become rather disillusioned when settlers decided to detach themselves from these activists and their organisations and instead of opposing the state and market

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[26] This programme will be discussed in detail in chapter 4.
[27] As members of both organisations told me, it was good to participate in these consultative processes even if only to prove that BMC does not take them seriously.

they moved towards negotiating with them. The potential profits that can be made by participating in a rehabilitation project are quite tempting for anyone living in a slum. This is also what I have occasionally experienced in the field: groups of residents are very willing to work together with progressive organisations, but never lose track of their immediate objectives. It may well be that one organisation is traded for a politician if a better offer comes up.

4.3.3 THE USER-GENERATED APPROACH

This last approach is more a vision than an actual approach. It is propagated by an institute named URBZ and its affiliated organisations such as the Institute of Urbanology[28]. "User-generated" is the term used on the URBZ website and I believe it to be appropriate, as 'self-improvement' has a rather normative and neoliberal assonance. The user-generated approach acknowledges that there is not one city, but rather a set of distinct neighbourhoods. The residents of the neighbourhood are seen as experts of their area through their everyday experience of living and working there; this knowledge forms the basis planning and urban development. The approach resents the use of the word "slum" (Echanove and Srivastava, 2009) as it sees this as self-reinforcing and normative; it also seals the outcome of the neighbourhood, be it demolition or resettlement. Rather it sees each neighbourhood as the outcome of different historical factors, shaped by a variety of networks. These networks are also held together by the extensive contacts that residents of a neighbourhood keep with their place of origin, through the use of the cheap Indian railway system. Examples of this vision are the so-called mashups that they produce; juxtapositions of old city neighbourhoods from Italy or Spain with Dharavi. These pictures show on one side painstakingly clear that historical European city centres, were also probably also once considered to be sites of decay; and on the other side they make evident that it would be an enormous cultural loss if distinct neighbourhoods of Mumbai were to be lost, just to be replaced by flats, in the name of 'development'. The following quote makes very clear what this approach is about: "*Between 1997 and 2002, the government and the builders built 500 000 houses in urban India, when at the same time, the people built 8.5 million units in so-called 'slums'".* (Srivastava and Echanove, 2012)

This visionary approach is very inspirational as it challenges to think beyond easy dichotomies such as rural-urban or slum/non-slum. However, there are two downfalls in my view. First, it is mainly a vision. In a sense it is very present in a place like Dharavi, where URBZ is located, as the area is constantly created and reshaped by own dynamics and networks. However, such an approach is very far away from any institutional recognition; interviews with the URBZ staff are mainly found in architecture magazines. On the other side, to make their point clear, the staff of URBZ obscure another. To explain that settlements are not 'slums' full of poor people that are waiting to be saved by outside intervention but are actually coping through their own networks and resources, they are rather silent on the theme of urban poverty, which is of course also very present.

4.4 CONCLUSION

This chapter has gone further in the various manifestation of what a slum is, or actually how it 'is done'. By analysing Garib Nagar, a relatively small settlement next to one of the city's busy train stations it becomes clear that there are various ways of describing such a settlement. These descriptions do not exist in and off themselves, but they follow a certain discourse and perhaps also serve a particular goal. Very much related to these descriptions are different visions of what those that describe would like a slum area to be. These future visions lead us into the realm of multiple ontologies, the recurring theme throughout this thesis.

In this chapter two main enactments have been given of Garib Nagar, these have been further enriched by providing some insights on how the popular media represents the area. The first enactment of the settlement is based on socio-economic profiling; this is what I label the 'mainstream-NGO' enactment. This enactment illustrates very well the dire conditions in which people live in Garib Nagar. The way in which this is done, through the use of indicators and charts, allows for clear-cut intervention purposes. In fact, from these types of

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[28] See urbz.net; urbanology.org; and airoots.org

documents it becomes clear what the topics of focus are of the respective author NGO. *Umeed* is an umbrella-project carried out by four different NGOs, each with a different expertise; all these topics are extensively covered in their reports. One aspect that is left untouched by 'mainstream-NGO' enactment is the political, be it electoral politics or local power plays. This description of slums, allows for an intervention approach in which the state and NGOs work together to provide services to these areas; I label this the 'co-operational approach'

The second enactment of Garib Nagar is my own analysis of what I have observed and experienced. Although this is a personal view on the settlement, I would still classify this description as a 'socio-political' analysis of the area. By focusing on the local vested powers and the nexus of these with politicians, I have attempted to describe the mechanisms which allow for marginalisation to take place on a daily basis. This has been done by tracing the history of the settlement, as well as describing the local power plays and the negotiations that take place to (semi-illegally) obtain public services. The purpose of this section has been to question the existing system of power and land ownership, by exposing the mechanisms and discourses (i.e. the 'illegality' enactment) on which this is based. Working with this knowledge results in a more 'confrontational' approach, in which the state is confronted and held accountable for its inability to take care of its citizens.

However, I also realise that by focussing largely on power structures in my description of Garib Nagar, I have also omitted a different crucial enactment of a slum. Garib Nagar is a place of employment, a vast part of its people is able to constantly struggle against the difficult conditions in order to provide the following generation with better opportunities. This view of a slum is reflected in the 'user-generated' approach, which argues for recognition of the urban poor's ability to construct its own housing and shape its neighbourhood.

PART 3: SANITATION MULTIPLE

CHAPTER 5: FOCUSSING IN ON SANITATION

This chapter explores the various dimensions of sanitation and sanitation policies. It is the result of an exploratory journey that I have made as a student enrolled in a Watermanagement course mainly concerned with the productive use of water in an agrarian context to dealing with wastewater in the urban context and the very production of that wastewater.

This chapter will mainly try to answer the question of how sanitation 'gets done' or is enacted in multiple ways. By analysing the concept of sanitation in a variety of contexts, from global to local, I will show that there are different understandings of this matter, each shaped by different views of society, each with different policies and politics. I will make the case that sanitation is a 'boundary concept' (Mollinga, 2008) that makes it easy for academics, policy-makers and practitioners from a wide array of epistemic communities to discuss and work together. In fact it can even be compared to 'Mol's' atherosclerosis (Mol, 2002), it is a word that can be used to describe a whole range of objects and discourses. However, this multiple applicability of such a concept makes it also very susceptible for ontological politics. All enactments need a 'hinterland' to function, the actor-networks that enable these enactments may be more powerful than others, allowing for one enactment to be dominant over others.

My objective in describing the different enactments of sanitation is to point out that access to sanitation is not something that is achieved merely through construction of toilets or latrines. I also point out the multifaceted complexities of sanitation to argue that neoliberal management models are not appropriate for poor urban areas. Furthermore, by showing different enactments I make the case for the need of a more context-specific and gender-sensitive understanding of how access to sanitation takes shape in a day-to day reality in order to improve intervention models.

This chapter is set up in the following manner. First, the concept and problems of sanitation will be analysed according to the dominant international development discourse, especially by looking at policy and interventions. This chapter will then proceed to understand the Indian context regarding sanitation, its caste sensitive dynamics and subsequent policies. Third, a local grounded reality of the meaning, practices and politics of sanitation in Mumbai will be discussed. This chapter will end with a summary of the main arguments and with an analysis of the interactions between the different ways of 'doing' sanitation.

5.1 DEFINING SANITATION

The word 'sanitation' comes from the Latin *sanitas* meaning 'health'. It first seems to appear in 1848, irregularly formed from sanitary and first recorded as a euphemism for garbage (e.g. sanitation engineer) in 1939. Sanitation is often defined in relation to public health and measure taken to improve this; for example, one definition often used is the "formulation and application of measures designed to protect public health" (Stedman, 2004). But the definition also varies according to the professional group which uses it. For example in the medical domain there is often reference to pathogens (i.e. viruses, bacteria and other microorganisms), while others make more explicit reference to the disposal of sewage; this being more the realm of public health engineers.

Of course the practice of sanitation as a large-scale efforts to separate people from their waste (products) exists much longer, as the ancient Romans already built latrines and sewage drains (Scobie, 1986); in the Indus valley civilisation (2500 to 1700 B.C.E.) similar drainage works have been observed. Underground sewage started to be laid down in the USA in the 1860s (Schultz and McShane, 1978) and in Britain around the same time; by 1870 most areas of London had covered sewage (Chaplin, 1999).

My own definition of sanitation has changed throughout the course of this research. My interest in the subject started from the horrifying statistics of the UN stating the 2.6 billion people do not have access to adequate sanitation and moved towards a more detailed understanding of non-access to sanitation in practice. Therefore

my understanding of sanitation was only concerned with faecal matter, and as it will become clear towards the end of this chapter it has moved towards a wider interpretation of the subject.

In the international development context sanitation mainly concerns faecal matter. The definitions used by different organisations are not always clearly stated; often it is defined by using targets and indicators and through listing technologies as 'appropriate' or not. I believe it is worthwhile looking into these various definitions, perceptions and ontologies in to understand what is defined as 'sanitary' according to various institutions. Furthermore, on the 28th of July 2010, the United Nations General Assembly explicitly recognized the human right to water and sanitation, with Resolution 64/292[29], and acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights. This resolution opens the door for all kinds of legal battles as it legally binding[30]. The legal aspect of the matter makes defining sanitation and access to sanitation an even more important matter.

A definition developed for the International Year of Sanitation 2008 by the Water Supply and Sanitation Collaborative Council and approved by the UN-Water Task Force on Sanitation is: "*Sanitation is the collection, transport, treatment and disposal or reuse of human excreta, domestic wastewater and solid waste, and associated hygiene promotion*".

Other definitions include the need for privacy and dignity: "*Access to, and use of, excreta and wastewater facilities and services that provide privacy while at the same time ensuring a clean and healthful living environment both at home and in the immediate neighbourhood of users.*" (Millennium Task Force in COHRE et al., 2008; p17) or *"[s]anitation is access to, and use of, excreta and wastewater facilities and services that ensure privacy and dignity, ensuring a clean and healthy living environment for all."* (COHRE et al., 2008)

It is interesting to see how one definition focuses more on details on how to remove and treat excrements, while others are more focused with consequences for people and their direct surroundings. Of course, one can imagine that the emphasis one focuses on is very context specific. Moreover, these definitions are meant to be universal, despite using culture-specific concepts of 'privacy' and 'dignity'. General outlines from the UN Sub-Commission on the Promotion and Protection of Human Rights are that *"[s]anitation must be safe, physically accessible, affordable and culturally acceptable.*" (ibid, p.20); of course this opens a whole new box of legal semantics regarding definitions.

Other definitions also consider specifically vulnerable groups such as 'the environment', women and children. In the General Comment No. 15 on the right to water adopted by the United Nations Committee on Economic, Social and Cultural Rights (2002): *"Ensuring that everyone has access to adequate sanitation is not only fundamental for human dignity and privacy, but is one of the principal mechanisms for protecting the quality of drinking water supplies and resources. In accordance with the rights to health and adequate housing […]. States parties have an obligation to progressively extend safe sanitation services, particularly to rural and deprived urban areas, taking into account the needs of women and children."* (UN, 2002)

It is of course impossible to comprehend all the aspects concerning sanitation in one definition, but there are also other issues at stake. From a legal human rights approach, it may be useful to include access to sanitation in the framework of human rights in order to put pressure on governments on providing services to their citizens. However, the term "progressive realisation" can be interpreted in various ways. Also, as this framework does not offer any guarantee that providing services will be considered a public responsibility, fears exist amongst anti-privatisation activists that framing water and sanitation as a human right could open the door to the private sector to provide these services (Bakker, 2010).

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[29] Accessible at http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/64/292
[30] http://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=10403&LangID=E

5.2 SANITATION IN THE INTERNATIONAL CONTEXT

This section attempts to describe how sanitation is 'done' in the international context before turning to India and Mumbai. It relies mainly on data from reports and press statements that are meant to inform the general public on the state of sanitation throughout the World. This literature study of the many reports prolifically produced by various NGOs and UN bodies and following the wider debates around these for the last two years has provided me with a fair understanding of how the problem of sanitation portrayed in international policy circles. I will argue at the end of this section, that the forms of knowledge produced through these types of reports, facilitates neoliberal techno-managerial solutions, which allow for a dominant epistemology to be transformed in a dominant ontology (*cf.* Swyngedouw, 2004; p14)

5.2.1 JOINT MONITORING PROGRAMME

The Joint Monitoring Programme of UNICEF and WHO is the leading international authority regarding global drinking water and sanitation data. It was put in place to monitor MDG Target 7c, which calls on countries to: "*Halve, by 2015, the proportion of people without sustainable access to safe drinking-water and basic sanitation*"[31]. It seems that this target will not be achieved, as by 2010 approximately 2,5 billion people, or 37% of the world population did not have access to 'improved sanitation'. The JMP defines a series of sanitation technologies either as 'improved' or 'unimproved', as shown below in table 1. In order to make further distinction and signal trends, JMP also uses the concept of 'ladders' to distinguish between 'improved', 'shared', 'open defecation' and 'otherwise unimproved' facilities. The concept of ladders not only evokes the idea that one is supposed to climb up over the course of his/her life, it also suggests that sanitary technologies, modernity and development are all interlinked. Special attention is given to the 'lowest step' on these ladders, the practice of open defecation and the number of those that practice this.

TABLE 19 JMP Categories of Sanitation Technologies (JMP, 2012)

"Unimproved" sanitation:	**"Improved" sanitation**:
- Flush/pour flush to elsewhere - Pit latrine without slab - Bucket - Hanging toilet or hanging latrine - No facilities or bush or field	- Flush toilet - Piped sewer system - Septic tank - Flush/pour flush to pit latrine - Ventilated improved pit latrine (VIP) - Pit latrine with slab - Composting toilet

The distinction between what is improved and what is unimproved, especially when considering the link to what is accordingly considered to be hygienic, creates albeit unintentionally, a hierarchical order between users of different technologies. This distinction exacerbates differences in socio-economic status, as it links technology to notions of cleanliness, thereby reinforcing the myth of the poor as 'dirty'.

Another interesting point worth mentioning is the fact of shared facilities. If a sanitation facility is shared by more than two households it is considered to be 'unimproved'. This arises from the fact that these facilities may not adhere to cleanliness standards and not be accessible for all at all times. However, JMP does recognise that the number of people using shared toilets is growing and that in many countries, and especially in crowded urban areas, shared sanitation is a very common phenomenon. Therefore it has set up a task force looking particularly into the issue of shared sanitation.

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[31] http://www.un.org/millenniumgoals/environ.shtml

Of course, assessing toilet use throughout the world is not an easy task, this does raise some methodological challenges. The improved/unimproved dichotomy arises from the methodological implications of obtaining data from all over the world and relying on national data which may not overlap in definition of 'access' to sanitation. The JMP measures and reports on the actual use of facilities, as stipulated by the MDG indicator definition. As 'access' involves many aspects other than use the household surveys and censuses, on which the JMP relies, only measures 'use' and not 'access'.

Other problems that arise from the use of this dichotomous approach are the focus on building toilets, not maintaining them (WHO, 1992); a too large focus on certain technologies (such as the use of pit latrines); and a lack of a comprehensive understanding of the term 'sanitation' (Joshi et al., 2011). However, to date there is no other method of assessing the magnitude of the sanitation problem (or its definition) on a global scale. Therefore, all involved organisations and individuals, refer to the JMP data, and in particular the amount of people practising open defecation, in order to illustrate the magnitude of the matter.

5.2.2 EcoSan

A part of the involved organisations in the field of sanitation can be placed under the ecological sanitation (EcoSan) movement. The main focus of this movement is not only to provide sanitation, but to do so while recovering precious resources such as nutrients and water. Attention is given to depleting phosphor stocks, which will severely influence the availability of synthetic fertilisers. A network of involved organisations of this movement is the Sustainable Sanitation Alliance (SuSanA). On its website SuSanA gives its definition of sanitation: "*The main objective of a sanitation system is to protect and promote human health by providing a clean environment and breaking the cycle of disease. In order to be sustainable, a sanitation system has to be not only economically viable, socially acceptable, and technically and institutionally appropriate, it should also protect the environment and the natural resources.*[32] (emphasis added)

SuSanA seem to be born out of a cooperation between the German development assistance organisation (GTZ) and the The Swiss Federal Institute of Aquatic Science and Technology

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[32] http://www.susana.org/lang-en/sustainab

Box 5.1: Bill Gates' toilet

The Bill & Melinda Gates Foundation recently issued a challenge to various universities to submit proposals for how to invent a 'new toilet'; one that is waterless, hygienic, safe and affordable (less than $0.05 per user per day) for "people in the developing world" and without requirement of a sewer connection.

The 'old' toilet based on the model from Victorian times is seen as a waste of water and nutrients and the cause of the current sanitation crisis. The 'Reinvent the Toilet Challenge' was aimed to "foster leverage advances in science and technology and create a new toilet that will transform waste into energy, clean water, and nutrients."

Eight universities were awarded grants:

1. A toilet that produces biological charcoal, minerals, and clean water. (Professor M. Sohail and team; Loughborough University, UK)

2. Turning the toilet into an electricity generator for local use. (Professor Georgios Stefanidis and team; Delft University of Technology, the Netherlands)

3. A urine-diverting toilet that recovers clean water on site. (Dr. Tove Larsen, Swiss Federal Institute of Aquatic Science and Technology and Dr. Harald Gründl, EOOS; Switzerland)

4. A community bathroom block that mineralizes human waste and recovers clean water, nutrients, and energy. (Professor Christopher Buckley and team; University of Kwazulu-Natal South Africa)

5. A community scale biochar production plant fed by human waste. (Brian Von Herzen of the Climate Foundation and Professor Reginald Mitchell of Stanford University; USA)

6. A toilet that uses mechanical dehydration and smouldering of faeces to recover resources and energy. (Professor Yu-Ling Cheng and team, University of Toronto; Canada)

7. A solar-powered toilet that generates hydrogen and electricity for local use. (Professor Michael Hoffman, California Institute of Technology; USA)

8. A pneumatic flushing urine-diversion dehydration toilet. (Professor How Yong Ng and team, National University of Singapore; Singapore)

(EAWAG). Its focus can be classified as exemplary of the 'techno-managerial' (*cf.* the engineering-mindset in (Bolding, 2004)), that is looking for 'technical solutions' and 'feasible business models'. The SuSanA also acts as a platform to share case studies of sustainable sanitation examples from around the World.

The 'EcoSan model'[33] often relies on household participating (financially or through labour) in construction of latrines. The latrines are used to separate urine from faeces which are then collected and adequately stored in order to be further re-used as manure.

As I have argued in previous work (Galli, 2011), the problem with this approach is that it often fails to take into account the complex difficulties often found in poor (peri-)urban areas. The system is very sensitive to regular collection of the 'human fertiliser' but for example, lack of financial means could result in the exclusion of the poorer segment of the inhabitants that cannot afford to build their toilet or to have their waste collected by a local service provider. Other aspects which are not adequately considered include tenure insecurity; a majority of tenants staying in houses they don't own; lack of service institutions which are crucial in making the marketing model work; and assuming a preference for private property over collective property.

Furthermore, the 'EcoSan' model relies to a great extent on the composting of human faces for fertiliser purposes. This makes the approach very susceptible to cultural sensitivities regarding the subject of faecal matter, which in many cultures is surrounded by persistent taboos, as will be explained later in this chapter.

5.2.3 GIANT INTERNATIONAL NGOS

International NGOs such as WaterAid[34] and Plan International[35] also play an important role in setting the agenda within the 'sanitation world'. Plan considers water and sanitation determining factors in improving the health and development of children, while WaterAid regards access to water and sanitation as the first step in overcoming poverty. Here, I will consider the work of the latter organisation as they play a more prominent role in the field of sanitation.

WaterAid defines sanitation as the: "access to safe, clean and effective human urine and faeces disposal facilities" (WaterAid, 2012). They also state: "Worldwide, 2.5 billion people live without this essential service and the resulting diarrhoeal diseases kill almost 2,000 children a day" (ibid). They operate in a so-called "integrated approach", where water, sanitation and hygiene education are provided together. WaterAid works in a number of partnerships with state governments, development banks, knowledge and advocacy networks, UN initiatives, multi-stakeholder platforms and not-for-profit partnerships with academia and the private sector. At the local level, they choose to work with local partner organisations such as NGOs, local government departments and sometimes private companies for project implementation. They operate on a community basis, with special consideration of the inclusion of women in their projects. WaterAid is also very active in lobbying at national and international policy levels to address the issue of water and sanitation. (WaterAid, 2012)

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[33] I am aware of making a slight generalisation here. I do not claim all 'ecological sanitation' models to be equal, but I do this to stress my concern that such a model often fails to take into account the social, economic, political and cultural complexities of poor urban areas in developing countries.

[34] WaterAid is a global NGO, with branches in five countries, which operates in 27 countries worldwide in the themes of water, sanitation and hygiene. It was set up as a charitable trust in 1981 from donations of the UK's water industry. Currently it is funded through private donations, trust funds, corporate partnerships and support from various European countries.

[35] Plan International was originally founded in 1937 in Spain during the Civil War as 'Foster Parents Plan for Children in Spain'. Nowadays the international charity is based in the U.K. and operates in more than 50 countries. Financially it is still dependent to a large extent on child sponsorships, as well as donations and grants. Plan is also the funding partner of *Umeed* the project in Mumbai through which I was able to gather data in Garib Nagar

More specifically on sanitation, WaterAid works in a variety of contexts and countries; for its rural work it has adopted the Community Led Total Sanitation (CLTS) approach (also advocated by Plan). The CLTS approach consists of creating a sense of collective shame in a village, with regard to the practice of open defecation, which results in a village-wide campaign of constructing latrines. Two other important aspects of CLTS are its non-use of subsidies, to invoke intrinsically motivated change; and the complete independence from technological expertise when building a latrine, allowing for 'appropriate' technologies which can are locally adapted. Once all in the village have constructed and use latrines, the village is awarded an Open Defecation Free (ODF) status. The risks of the CLTS approach are the lack technical focus which may lead to groundwater contamination (especially when this water is used for drinking water purposes) and the effect it has on excluding the poorest community members through its tactics of shaming those that continue to defecate in the open (Galli, 2011).

In its urban sanitation work, WaterAid focuses on community-based options such as mobile toilet kiosks and community latrines (WaterAid, 2009); they also work on knowledge dissemination, for example with documents to help civil society in reforming public urban water and sanitation utilities (WaterAid, 2007). There is a strong focus on community management and maintenance of projects to make them financially sustainable; however, this full cost-recovery principle is especially difficult to realise when providing services to the poorest (Hanchett et al., 2003).

For WaterAid to work successfully with so many partners throughout the world it has to remain as neutral as possible. The debate on water (and sanitation) provision is severely polarised between supporters of public provision of services and those that argue in favour of private service provision (Bakker, 2010). WaterAid is very careful not to enter in this debate and to claim a 'neutral' position. Despite its partnerships with the private sector, WaterAid understands that private sector participation is a contentious issue. On one of its webpages it states: *"WaterAid believes it is the ultimate responsibility of national and local governments to ensure all citizens have access to adequate and affordable water and sanitation services and to decide how they are delivered to all, whether via public, private or non-profit providers or utilities."*[36] Hence, their approach is a pragmatic one where they are more concerned that a service is pro-poor, affordable and sustainable; it is also argued that choices should be made in a transparent and consultative manner. Notwithstanding, some critics argue that the board of trustees of WaterAid is characterised by a large presence of representatives from the private water sector (Goldman, 2007).

Another aspect that characterises large NGOs is the need to show 'successes'. This is necessary to attract new funding and to be held accountable for previous donations. For example, WaterAid claims to have helped over 17,5 million people worldwide[37]. Not only is it very difficult to quantify all the efforts of such a large organisation into a number that can be easily communicated[38], there are also international tendencies to cut down on funds for development organisations. This amounts to the pressure to present positive stories and to mask or avoid difficult issues regarding water and sanitation service provision.

5.2.4 NEOLIBERAL LOO

The last three sub-sections have presented a variety of ways of how sanitation is "done" in an international context. At the highest level, that of the UN, it is stressed that many still lack access to sanitation and thus further action is needed. Obviously, the semantics of defining what appropriate sanitation is across the world are rather complicated, as is the collection of trustworthy data. Wide networks of technological institutes

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[36] http://www.wateraidamerica.org/about_us/faqs/what_we_advocate.aspx#2

[37] http://www.wateraid.org/what-we-do/our-impact

[38] During a job interview at a similar, but much smaller, Dutch WASH organisation, I was told that my job would consist of taking various reports form the different countries the NGO operates in and create a coherent story (with numbers!) that could be presented to the Ministry of Foreign Affairs which provided the funding to the organisation.

throughout the world, supported by the world's most generous philanthropists, argue that the sanitation problem can be solved by providing new technologies together with compatible business models. The world's largest and most influential NGO on the topic also approaches the topic as a stand-alone issue (not considering water and hygiene education), separate from any political connotations. Despite its pro-poor rhetoric, it does promote neoliberal principles such as full-cost recovery.

As may be clear for the reader, I am a bit sceptical whether these analyses and efforts consider all complexities of sanitation delivery and therefore I wonder whether the 'sanitation problem' can be solved in this manner. First of all, as it became clear from the first section, sanitation encompasses a wide variety of topics ranging from spreading of bacteria to cultural notions of dignity; this makes rather ambiguous what the problem is that has to be solved. But even then, if solving the sanitation problem only consisted in all people of the world having access to (and using) an 'improved' toilet, I still wonder whether these approaches would be sufficient.

My concern is the fact that provision of sanitation services (and water for that matter) is a deeply political issue. It is my conviction that non-provision of public services reflects political choices of governments which prefer to (or are forced to) spend their money in other areas. My concerns are shared by a few authors (Bond, 2008, Bond, 2012, Joshi et al., 2011, Penner, 2010) which argue for a more political view of the topic; however, there is little of this type of criticism and most is not published in internationally recognised journals.

As organisations working in international development constantly have to mobilise funds and support for their cause, they repeatedly have to state the magnitude of the problem at hand. Furthermore these organisations are under pressure to show successes in solving this problem. These two factors will therefore lead to a problem 'definition' which is partial; difficult aspects as politics are hereby carefully avoided. Many would be willing to donate funds if that leads to the construction of a sanitary facility in a poor(er) country, but few would do so if they would believe that the government of that country is not incapable but unwilling to construct such facilities by itself.

Swyngedouw (2009) explains that these efforts portraying the problem in an apocalyptic manner; as a single-topic issue; solvable in such a way that ecological sustainability and economic progress can go hand in hand; and most importantly represented as a techno-managerial problem that is stripped of any larger political claims are indeed conducive for a so-called "post-political" state. In this state, which he argues goes hand-in-hand with post-democracy, there is no space for dissent; there is only space for debates on technologies of management, finance and the modalities of governing (Swyngedouw, 2009). In contrary, "proper" democracy exists when those without voice have gained speech and where alternative visions that are impossible within the current order become part of the imagination (ibid).

Swyngedouw also warns of fetishizing nature and creating "enemies" which are vague, ambiguous, socially empty and homogenized. He uses the discourse of global warming where CO_2 (a greenhouse gas) is portrayed to be the 'enemy', rather than focussing on the (geo-political) power constellations which allow for these gasses to be produced en masse: "*Pollution, 'environmental degradation' or 'CO2' stand here as the classic examples of a fetishized and externalized foe that require dealing with if sustainable urban futures are to be attained. Problems, therefore, are not the result of the 'system', of unevenly distributed power relations, of the networks of control and influence, of rampant injustices and inequalities, of the police order and its non-egalitarian distribution of functions and places or of a fatal flow inscribed in the system, but are blamed on an outsider.*" (Swyngedouw, 2009; p612). I would like to make my point in case by stating that "open defecation" is also an example of such a "fetishized and externalized foe". By focussing only on the practice of open defecation, there is no attention to power asymmetries and mechanisms of poverty which allow for these

practices to take place on a large scale despite the wide availability of technological and financial means that would provide an option to those that practice this[39].

How to combine these few voices of critics that oppose this "neoliberal sanitation strategy" (Bond, 2008) and this abstract reasoning of post-politics and "proper democracy" (Swyngedouw, 2009)? To me it seems that there is a need to move towards a more contextual understanding of the problem, not only a provision of solutions. This is what the next sections will be about; only then it will become clear that the sanitation problem is not homogenous and socially void, but it is indeed a manifestation of a social struggle.

5.3 SANITATION IN INDIA

As in all cultures, in India sanitation, in all its facets, is surrounded by taboos and its close interlinks with notions of purity and impurity (Jewitt, 2011). This leads to the fact that sanitation in India is not a topic that is high on the political agenda (Chaplin, 2011); nevertheless the debate does pop up once in a while. While it is certainly shaped by the international debate, there are some distinct features. In an attempt to describe how sanitation is 'done' in the Indian context this section will describe these aspects that dominate the national debate.

5.3.1 SCAVENGING

First, the attention shall be diverted towards the practice of manual scavenging. Contrary to popular belief (or ideology) in urban middle class circles, caste issues are still very present in India. Although it would be unfeasible to go too much into detail on the caste sensitivities here, a short explanation on how I have understood the caste system is appropriate. This is however, I must repeat, a very limited explanation, as a detailed understanding of the caste system is far too complicated to present within this thesis. In ancient Hinduism four main castes or *varnas* can be found: the Brahmin, caste of priests; the Kṣatriya, the warriors; the Vaishya, the merchants; and the Shudras, the labourers. These castes are subdivided further into thousands of sub-castes. There are also those that fall outside the four *varnas,* these are literally the outcastes. There are various explanations how the lowest caste system has evolved, but from my own understanding, the Untouchables have originated from these outcasts as well as the Shudra. Untouchables were considered to pollute other castes, meaning that they were only allowed to carry out certain professions, which in turn also rendered them polluted, and discriminated against and ostracised in society. Despite the abolition of untouchability, as stated in the Indian constitution (article 15 and 17), this practice still continues to exist to date. The term untouchable was not used by Mahatma Gandhi, he referred to this group as the "Harijans", meaning "children of God". The term under which the lowest castes and the discrimination related to it are more commonly known, is "Dalit", meaning "oppressed". One of the most popular leaders of the Dalit movement was Ambedkar, a Dalit himself who obtained a PhD from Columbia University and was the Chairman of the drafting committee of the Indian Constitution. He was an advocate for the separate political representation and preferential reservation of Dalits. However, despite having managed to change the law, he converted to Buddhism briefly before his death in 1956, disappointed in the state's inability to end caste discrimination (Chatterjee, 2004).

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[39] I am not claiming that the use of toilets or latrines is only dependent on technology or funds, but I'm following the reasoning put forward by the approaches described above that claim these two aspects to be some of the main constraints to resolve the sanitation 'problem'.

One of persistent caste issues that still play a role in the 21st century, despite the state's attempts to abolish this practice, is the caste-based occupation of manually cleaning dry latrines and carrying its contents on one's head. This profession of manual scavenging, which is mainly carried out by women, makes those that practice it permanently polluted and thus also untouchable according to Hindu beliefs. Scavengers are therefore discriminated upon and also suffer from poverty. The task of cleaning, sweeping and manual scavenging is a hereditary one; it takes place predominantly in sub-caste communities named *"Bhangi"* and/or *"Valkimis"* (Joshi et al. 2005); these communities are also discriminated against by other Dalits (Chaplin, 2011). The men of these communities may be employed by the municipality to sweep roads, while women have to manually clean dry latrines (Chaplin, 2011). Women also marry into the profession as the Indian culture predominantly dictates the practice of arranged marriages between the same caste (Joshi et al., 2005). Scavenger communities that have converted to another religion, one that does not recognise division by caste, are still occupied in this profession (ibid). Salaries are very low, although those that are employed by the state are better paid (Chaplin, 2011, Joshi et al., 2005).

Box 5.2 Sulabh Shauchalaya

One organisation that has clearly linked the liberation of scavengers with the provision of alternative sanitation technologies is Sulabh International. This NGO was founded in 1970 by Dr. Bindeshwar Pathak and inspired on the Gandhian ideology of emancipation of scavengers. The two-pit, pour-flush compost toilet known as Sulabh Shauchalaya that does not require scavengers to clean the pits is implemented in more than 1.2 million houses all over India having helped to liberate over a million scavengers. (Sulabh, 2012)

Sulabh is most commonly known in cities for the public toilets at public places and in slums on 'pay & use basis' that are constructed and maintained by the organisation. Over 8000 of these facilities and 200 biogas installations have been constructed throughout India; over 200 of the toilet blocks are in Mumbai. The facilities started through partnerships with private sector such as banks and work on a pay-per-use principle to "create ownership". Upon construction of the toilets blocks not only the construction costs are taken into account, but also a 30- year maintenance plan. Toilets in prime locations are used to cross-subsidise those in areas where the poor cannot afford the daily charge. A monthly family pass system has also been introduced to make these toilets more financially accessible.

Critics in Mumbai say that Sulabh only constructs toilets in prime locations, not in slums and that their 30 years maintenance plan has in fact given them a monopoly position with guaranteed profits making these toilet blocks a "gold mine which reeks of corruption.

Sources: (Mehta, 1996); Sulabh website; interview with Sudhakar S. Kini - Hony. Chief Architect – Sulabh international Social Service Organisation – Maharashtra Office; Anonymous interview

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In 1993 the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act was passed, after a series of recommendation since Independence. This act, which was meant to prohibit employment of manual scavengers and construction of new dry latrines, has however failed to make an end to this practice; in 2012, manual scavenging still persists. There is a lack of accurate data on the amount of people employed in these types of tasks, reports vary from 8-14 lakh people (800 000 – 1 400 000) while many toilets are also "serviced" by animals, mainly pigs (India Sanitation Portal, 2012b, Hindu, 2013). Several local bodies as well as the Indian Railways still continue to employ manual scavengers and by 2012 not a single conviction had been made on basis of the 1993 act. A combination of factors has resulted in the persistence of this practice despite its illegality: Chaplin (2011) blames the inability of state governments and local authorities to implement any programmes to abolish manual scavenging and rehabilitate those that practice it. She states that not only are funds left unutilised and programmes left abandoned, but there is also reluctance from municipal authorities to impose penalties on households that continue to use dry latrines. The costs that these households would have to bear and the low political weight that this subject carries, makes that urban local bodies are not willing to

pick up this fight. Joshi and colleagues go even further and state that there is "*an institutionally entrenched attitude of apathy towards the caste-driven practice of manual scavenging*" and a "*justification and/or denial of the issue by users and service-providers alike*" (Joshi et al., 2005; p37). It is important to understand that despite the degrading nature of the work and the fact that many are forced into this profession, there is nevertheless some degree of economic security as no other groups are willing to take up these tasks. There is fear of loss of economic livelihood, as there is little faith in government-run rehabilitation schemes (Joshi et al., 2005). Another crucial factor that plays a role in this non-implementation is the fact that since Independence very little importance has been given to provide alternate sanitation systems in both urban and rural areas (Chaplin, 2011). While much emphasis has been put on improving the social conditions for (ex-) scavengers, little attention has been paid to technical alternatives that would make the profession superfluous (ibid). Those scavengers that have been rehabilitated as municipal sweepers, cleaners, or work in the sewers still have little to no access to safety equipment; their salaries are also under pressure due to outsourcing of environmental services by the municipality (Joshi et al., 2005). Furthermore, as unskilled labour is very cheap in India, any mechanisation of cleaning tasks or modernisation of toilets remains unattractive in cost terms.

In 2012, after continuous reprimands from the Supreme Court, the Central Government introduced to Parliament the Prohibition of Employment as Manual Scavengers and their Rehabilitation Bill. It remains the question whether this time the "symbolism of setting deadlines to abolish scavenging" (Chaplin, 2011; p185) can be exchanged for effective policy. The points of concern that resulted in non-compliance of the previous act, do not seem to be tackled in any way in the new bill (The Calibre, 2012).

5.3.2 RURAL SANITATION

Despite the urban focus of this thesis, lack of improved sanitary facilities is mainly present in rural areas, also in India (JMP, 2012); also the practice of open defecation (OD) is more widespread in rural areas (ibid). On the ranks of international sanitation statistics, India is poorly represented as two-thirds of the world's population that practices OD live in India. This makes the issue of OD a somewhat 'embarrassing' topic for the national government.

As my thesis research took place in the city, I have little first-hand data that allows me to gain a deeper insight on the state of sanitation in rural areas. However, during my stay in Mumbai, I closely followed the events that took place during the Great WASH Yatra[40], a travelling sanitation, hygiene awareness and behaviour change campaign that took place in October and November of 2012. I will discuss this event as it provides some understanding on how rural sanitation 'gets done' at the national level in India.

The Indian government, realising the importance of the rural sanitation problem, has set up a separate Ministry of Drinking Water and Sanitation, which falls under the Ministry of Rural Development. The Ministry was headed since July 2011 by the Rural Development Minister, Jairam Ramesh, as an additional charge; he was given this task as the Mumbai Congress leader Gurudas Kamat refused to accept this low profile portfolio. The Minister supported the *yatra* (meaning voyage or pilgrimage in Hindi) by attending its opening and by being present at one of the stops.

This fanfare, financially supported by international NGOs, stopped in six rural cities as it travelled 2000 km across the five Indian states with the highest percentages of OD. It was a highly publicised event that attempted to inspire people to: 1) use toilets; 2) wash hands after their use and before eating and cooking; and 3) break the taboo of speaking about menstrual hygiene. It involved the presence of cricket players, Bollywood stars and a lot of music, games and dance.

The minister did his part by catching national headlines with phrases such as: "no toilet, no bride"[41], "no use launching Agni missiles if there are no toilets"[42] and "toilets are more important than temples in India"[43]. The

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[40] http://www.nirmalbharatyatra.org/
[41] http://articles.timesofindia.indiatimes.com/2012-10-21/india/34627234_1_open-defecation-nirmal-bharat-abhiyan-jairam-ramesh

first comment was intended to convince women only to marry into houses that have a toilet, the second was a remark on the country's budget priorities, but it was the last comment that provoked the rage of the conservative opposition parties for hurting the "fine fabric of faith and religion" in India. Jairam Ramesh was replaced as Minister of Drinking Water and Sanitation even before the Yatra was over.

This incident finely illustrates how sensitive the topic of sanitation is in India. As toilets are considered impure, they are not to be discussed in the same phrase as religion. Also the Minister's comments show how women are not in control of household (financial) decisions, even regarding toilets/latrines. Third the politician's speeches show how he is more able to make a lot of noise, rather than implementing effective programmes. One of the participants of the Yatra added that the previous sanitation campaigns carried out by the government paid more attention to increasing the number of households with a latrine to improve the statistics, rather than building sustainable facilities that can withstand the monsoon rain. This creates a breach of trust among the people that are willing to invest in constructing a latrine (Nirmal Bharat Yatra, 2012).

At a more institutional level, India's main policy regarding sanitation in the last ten years has been the Total Sanitation Campaign (TSC). This campaign is surrounded by contradicting results and stories of corruption. According to the World Bank's and the Ministry's reports there should be a coverage of 65% of individual latrines in rural India (WSP, 2010); however, the Minister himself, acknowledges that this figure is "fudged" as the Census data reveals a figure of 33% (India Sanitation Portal, 2012a). Similar to what happens in urban areas (Chaplin, 2011), rural sanitation funds are either left unutilised or find their way into corrupt pockets (Mallet, 2012, India Sanitation Portal, 2012c).

5.4 SANITATION IN MUMBAI

This section will focus on the state of sanitation in the city of Mumbai. First a historical overview shall be provided to understand the current state of affairs. Afterwards I shall elaborate on my own experiences in the city to explain how sanitation 'is done' in Mumbai according to me. This will include my understandings from working in a settlement community as well a short description of the 'Right to Pee Campaign', a movement determined to provide free urinals for women.

5.4.1 HISTORICAL OVERVIEW

Much like the housing situation in Mumbai, as described in chapter 3, the current state of sanitation in the city has been heavily influenced by three periods. The colonial period until 1947 laid the basis for the unjust distribution of infrastructure throughout the city (Gandy, 2008); the post-colonial period which can be characterized by a "middle-class capture" (Chaplin, 1999, Chaplin, 2011) of environmental services reiterated and reinforced this division; while the last thirty years or so have been characterised by a number of World Bank projects which, despite their good intentions, have failed to produce significant changes for the sanitary conditions in the city.

THE COLONIAL PERIOD

During the colonial period, Mumbai's environmental services such as sewerage were modelled after the British cities. However, with a reluctance to invest too much in the colonies, these services were limited to the wealthier (British) parts of the city. As described in chapter 3, the lack of sewerage, combine with an increase of water supply led to a series of outbreaks of the bubonic plague between 1896 and the First Wold War (Gandy, 2008).

In Britain, as well as other parts of Europe and North America, centralised sewer systems were put in place during the latter half of the 19th Century. These services were gradually publically provided (i.e. by the

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[42] http://www.indianexpress.com/news/no-use-launching-agni-missiles-if-there-are-no-toilets-ramesh/966187
[43] http://www.indianexpress.com/news/jairam-says-toilets-more-important-in-india-than-temples/1012719

municipality) to all parts of the city to reduce the "threat from below"; as disease and social unrest would cause a lot of problems to the middle and elite classes (Chaplin, 1999). It was thus in the self-interest of these classes to provide environmental services to the lower classes (ibid). This provision was organised centrally by the municipality, thereby replacing all kinds of private systems; this went hand-in-hand with the emergence of new financial products such as municipal bonds (Gandy, 2006).

In Indian cities however, the British opted for a different strategy, namely one of segregation. Environmental services were provided to the colonial elites (Gandy, 2006, Chaplin, 2011) while 'natives' had their own quarters. Slum clearances were part of a campaign to 'clean up the city' and polluting, unhygienic industries such as tanneries were simply relocated away from the colonial quarters. As colonies were meant to be a source of wealth, not something to invest in there was also reluctance to provide environmental services throughout the whole city.

Box 5.3 The "Bacteriological City"

Gandy (2006) argues that at the end of the nineteenth century a new ideal city emerged, the so-called "bacteriological city". In this ideal city new insights from epidemiology and microbiology were used to understand and counteract contagious diseases. This was made possible through new forms of technical and managerial expertise in urban governance as well as the use of financial instruments such as municipal bonds to complete ambitious engineering projects such as municipal water and sewer networks.

This ideal city model became the norm throughout 'developed' nations; however, it proved unfeasible to implement this state-led standard of water and sanitation provision in 'developing' countries. Despite the realisation that this model failed to serve large sections of populations in these countries, the technocratic vision of universal state-led services was still deployed at international conventions on drinking water and sanitation thereby being reinforced as the dominant approach. (Gandy, 2006)

THE POST-COLONIAL PERIOD

The post-colonial period saw a series of factors that perpetuated the segregation of the environmental services provided to the city. On one side there has been a reluctance to invest public money in the city due to the "Gandhian" ideal of the village (Chaplin, 2011), which has been combined with a general pattern of public underinvestment in water and sanitation services (ibid). Sewerage in the city, like the water services described in chapter 3, has always been lagging behind the population growth (Gandy, 2008). Public investments in sanitation services draw even less political support than water, due to the high costs and low perceived returns; this has led to a very limited investment in this field (Chaplin, 2011).

Those investments that have been made have been captured by the middle classes and elites (Chaplin, 2011). Advancements in medicine and the rise of secluded areas, where the rich and the poor don't mingle, have reduced the "threat from below" that motivated city-wide investments in urban sanitation in 19th Century Britain (Chaplin, 1999). As middle classes and elites are able to obtain their access to environmental services through family-, kin- and caste-relationships and with the help of "speed money", they are not interested in putting these topics on the political agenda (Chaplin, 2011). In fact, the rich don't bother to vote at all; electoral voter turnouts in the richer areas of Mumbai is usually around 18-30% (Chaplin, 2011, Economist, 2012), whereas the poor do. In election time, residents of slums can use their collective voting power to obtain public services; these are the so-called 'vote-bank' politics. Nevertheless, public investments in sanitation provision (e.g. toilet buildings or sewerage) are not the most important topics at stake during election time. This is related to the 'unpopular' political character of sanitation, as the issue is surrounded by notions of impurity.

Slum dwellers in the city have thus become dependent on a very limited number of public toilets, which are often poorly maintained. Open drains loaded with excrement are also a common sight in Mumbai; the public toilets also drain in these *nalas*. A vast number of slum-dwellers, over 400 000 (WSP, 2006) prefer open defecation in parks, open spaces, beaches and along railway tracks over the crowded dirty public toilets. This sometime creates conflict with the city's rich that do not want to see people squatting on the beach when they look out of their million-dollar sea-view apartments. Private guards are employed to chase these people away from beaches and parks [44] (Chaplin, 2011, Mehta, 2005). The figure to the right shows the different types of sewerage in the city: open surface drains, covered sewer and a combination of both. Interestingly enough the covered drains can be found mainly on the west side of the city, where property values are often much higher.

FIGURE 14: WARDWISE DISTRIBUTION OF SEWERAGE TYPES (MUNDU AND BHAGAT, 2011)

THE NEOLIBERAL ERA

Sanitation programmes, reflective of general tendencies, have also been characterised by a retreat of the state to promote an increased introduction of private partners, participatory mechanisms and user charges as a basis for cost recovery. In Mumbai, this predominantly took place in the form of the Slum Sanitation Programme, a World Bank funded project of which phase 1 was implemented from 1996 to 2005 (WSP, 2006). This programme, which was part of a larger project in the city meant to provide sewerage and wastewater-treatment facilities, intended to provide communal toilet facilities to slumdwellers of Mumbai; however, due to legal complications it could only take place in slums of which the land belonged to BMC. The project was designed so that the city would construct toilet blocks upon request of a community-based organisation (CBO); upon termination of construction this CBO would be responsible for operation and maintenance of the toilet block (ibid). A memorandum of understanding between the municipal corporation (BMC) and the CBO would be signed to define the responsibilities of each actor (ibid). Construction of the toilets as well as formation of the CBOs was mainly carried out through NGOs (ibid); one important NGO that managed to obtain around three quarters of all contracts is SPARC (see Dharavi intermezzo in chapter 3). Users were expected to pay-per-use for the toilet or through monthly family passes if they were members of the CBO; this would help to finance the operation and maintenance of the toilet block (ibid).

The SSP has been acclaimed as a successful partnership between the World Bank, the municipality (BMC), NGOs (SPARC) and slum dwellers. However, critics point out that this program was only successful in constructing toilet blocks in a minority of cases. In most toilet blocks built through the SSP, CBOs only existed on paper, families were excluded from becoming members of the CBO and in poor areas users were unable to
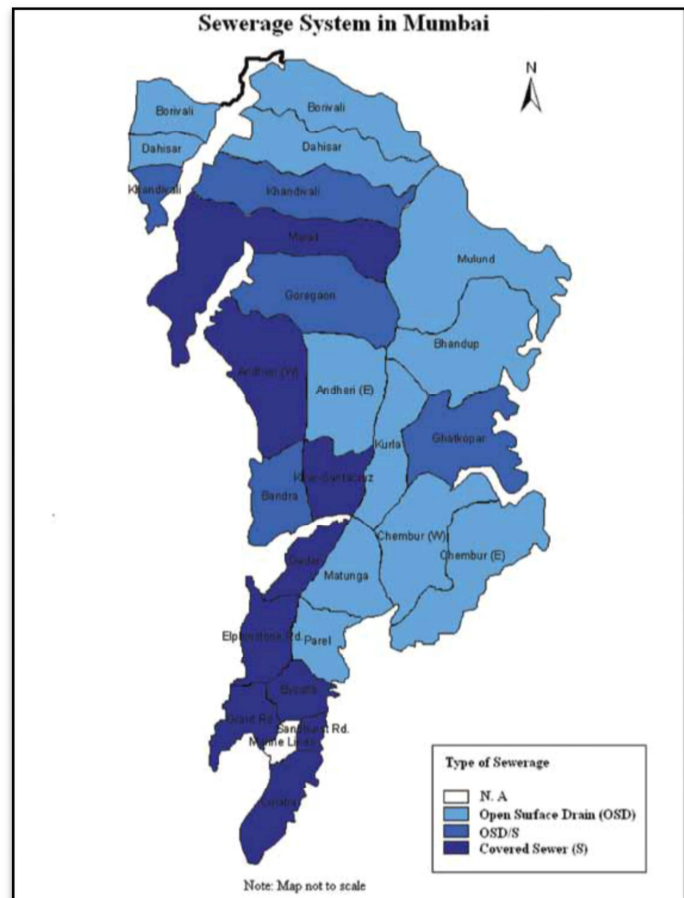
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[44] I had the chance to visit one of these apartments and talk to the owner

cover the costs for each use (McFarlane, 2008, Sharma and Bhide, 2005, TARU and WEDC, 2005). In the process of the SSP there has been a re-dimensioning of the extent of of public participation in the project (Sharma and Bhide, 2005) as well as a repositioning of the role of NGOs, from organisations that come up for the rights of the poor to implementing parties that are "co-opted by the system" (ibid). Various voices question this new role of NGOs as service providers, moreover because they do not have any democratic accountability mechanisms put in place (Sharma and Bhide, 2005, Chaplin, 2011).

Box 5.4 Right to Pee Campaign

Pay-per-use public toilets in India can be found at all major bus and train stations. In Mumbai these toilet blocks are a common sight throughout the city. The toilets are characterised by a male and female section for which one must pay somewhere between Rs.2 and Rs.5; the toilet blocks are also equipped with a free of charge urinal for men. There are approximately 4000 free public urinals in Mumbai.

Most women avoid public toilets, as they are not kept clean, are poorly lit and for the city's poor they are too expensive. It is often reported that women prefer to hold their urge till they get home and also resort to reduced liquid intake. This leads to a series of health problems such as urinary tract infection.

A group of women from various NGOs, united under the name Right to Pee Campaign, have joined forces to bring about change; they have expressed their demand for free, safe public urinals for women. This storty which was picked up by the international media got a lot of attention; BMC has made promises that they will take up the issue, but this has yet to materialise into concrete action.

One excuse that is given by BMC for their inactions is that there is a lack of space in Mumbai to build public urinals for women. The Right to Pee Campaign is now also trying to obtain land reservations in the new Development Plan (DP; see box 3.4) so that this can be implemented in the future. In the old DP this was not taken into account, as at the time it was not considered that women would be working away from home.

However, these archaic paternalistic views materialised in unjust distribution of free urinals, are not the only problems the Right to Pee Campaign has had to face. It appears that various bureaucrats that would have to construct these toilets are in fact owners of these toilet blocks; they fear money loss if women will be allowed to pee for free in the future.

Source: Interviews with Right to Pee Campaign; (Yardley, 2012); Documentary Q2P by Paromita Vvohra

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Another example of this neoliberal mindset can be found in the recommendations of the influential report "Vision Mumbai – Transforming Mumbai in a world class city". Here it is suggested that additional public toilets should be built through private participation; government should offer private players land as an incentive for them to set up public pay-per-use toilets (Bombay First and McKinsey Consulting, 2003).

A participatory stakeholder process has been initiated by various organisations to discuss and provide inputs for the new Development Plan (see box 3.4). Ten issues, among which also water (and sanitation) have been identified and for each topic a Stakeholder Group process was initiated where different professionals, representatives of organizations and activists were brought together to discuss each theme. The outcome of this process was a letter that was sent to the Municipal Commissioner; the suggestions regarding sanitation were: 1) provision of public toilets, one toilet per 4-5 families, to be maintained by these families; 2) extension of the sewerage network and corresponding treatment facilities; 3) recycling of wastewater; and 4) decentralised wastewater treatment systems for each housing society (UDRI, 2011). It seems that these recommendations, except the first, are biased towards the middle class segments of Mumbai's society.

5.4.2 SANITATION AT A NEIGHBOURHOOD LEVEL

So what is sanitation at the neighbourhood level in a slum community of Mumbai? How is it 'done' in Garib Nagar? First it is interesting to notice that the word sanitation does not translate literally in Hindi or Marathi; often the equivalent of 'clean' or 'cleanliness' is used: *svachchhata*. In this context it is very clear to the inhabitants what is meant: toilets, drainage and garbage.

FIGURE 15:GARIB NAGAR AND ITS SANITATRY FACILITIES; GREEN AREAS ARE USED FOR OPEN DEFECATION (SOURCE GOOGLE EARTH)

TOILETS

In the neighbourhood where I carried out my study, there was a severe lack of available toilets seats. A large fire in the previous year had destroyed the whole community including the community toilet block. Houses had returned, but one year later there still was no sanitary facility. The whole community, approximately 3000 people depended on two public toilets located just outside the slum area. These facilities are not exclusively for this community and were also used by people from adjacent communities. The public toilets also provided unequal gendered access; there were 6 seats for men and 2 for women in one toilet block side and 7 seats for men and 2 for women in the other toilet block. The fee to use the toilets was Rs.3 for men and Rs.2 for women; no family passes were issued. Some, both men and women, found the pay-per-use toilet to be clean, while others didn't. Complaints of the men toilets were of *paan*-spit and cigarettes, while women often found blocked toilets because of sanitary napkins and cloth. Both public toilets as well as the old communal toilet are pour-flush toilets; the user pours water inside the latrine to flush it. This type of toilet is very common in Mumbai and in India in general.

FIGURE 16: OPEN DEFECATION AREA

As a lot of people are dependent on the two public toilets, queues up to twenty minutes are common in the mornings; women queue even longer. Most men of Garib Nagar prefer to defecate outside in an adjacent field, as they are not rushed there and can avoid the queues in that way; women are culturally not allowed to do so. These people carry water from home or take some from the public toilet in order to clean themselves. Peeing is done at the house in a sink area, but only when others have left the room and/or covering oneself with a curtain. The same space is also used for bathing. For the elderly it was also problematic to walk to the public toilets and cross the busy street. Another issue that played a role was the fact that the open area which was used for open defecation was under a skywalk or along the tracks, this exposes the people at a very undignified moment. Men also complain of the hassle of mosquitoes and other insects when defecating outside. Younger children defecate outside, close to the house or on the tracks. The public toilets are open from 5am to 12pm, or earlier if the water runs out; if one has to go at night one has to do so outside. At night there are thieves that rob people and also transsexual sex-workers that molest the younger boys. However, adolescents declared that it's also nice to go in a group to the fields, so they can smoke and discuss 'school issues'. Once married, men go alone. For women it's the same, although they go to the public toilets.

The price of using the public toilets is quite high if one considers that families are usually large, an average of 5 people is commonly used. In case of diarrhoea one must still pay for each use. A survey in the community revealed that the people declared to pay an average of approximately Rs. 400 per family or 5,5% of the average

declared income. In comparison, the cost for the old toilet block was Rs. 10 per family per month. This tariff was usually paid to one of the slum leaders' family, they hired cleaners that came once-twice a month; some people found the old toilet also to be dirty. Nonetheless, when asked what should change in the community, the vast majority replied that the communal toilet should be rebuilt. The main reason that was given was the inconvenience it gave to the women; this was also said repeatedly by men "we can adjust [meaning: go outside], but for women it's a problem." In the following chapter a description will be given of the series of events that took place in order to establish a toilet block for the community.

A very small amount of people have private latrines in their homes, these people are located at the tail-end of the main drain and could therefore directly discharge inside the drain. Even the public toilets discharge into the open drain, which joins the Mirthi River to go to the sea at the Mahim Bay. All commuters passing between the station of Bandra and Mahim can tell exactly where they are by the smell of the contents of the Mirthi River.

FIGURE 17: WATERLOGGED ALLEY IN GARIB NAGAR

DRAINAGE

The neighbourhood in question was originally a swamp; it is thus a low-lying area. Drainage is therefore already a problem in itself, but this has been exacerbated by a series of anthropogenic factors. The area is sloping downwards in the North-South direction; all inhabitants are very well aware of this, as it has a big influence during the rainy period and for the water pressure. Some areas or alleys are constantly waterlogged with sewage water.

FIGURE 18: WATERLOGGING UNDER THE SKYWALK BRIDGE

The settlement is drained by one main drain, which joins the above-mentioned large drain to go towards the Mirthi River. Most streets have some form of drainage, in some cases open, in others covered. Some alleys are also used as open drains, although the water is usually stagnating in these areas. Stagnation of the drainage water is also caused by the vast amount of garbage that blocks the free flow of water. These blockage caused by trash also block the main drain of the area; this will be discussed further in the next sub-section.

One older resident also told me that "the slope had changed", which according to him caused severe waterlogging in the area. Although I wasn't able to verify this in any manner, the most severe waterlogging is found under the skywalk-bridge; it could very well be that this bridge, with its heavy concrete pillars has lowered the ground level just enough to make drainage problematic in that part. Other areas, mainly unused parts of the community are also constantly waterlogged; these are perfect breeding grounds for mosquitoes. Especially during the monsoon periods there are many cases of vector-transmitted diseases such as malaria.

The majority of the streets have some form of drainage. However, a lot of these are poorly maintained, it is not uncommon that these overflow. As most streets are unlined, in the case of severe rain these become very muddy and it is difficult to wade through the streets. In some cases the ground floor of the houses lay lower than the streets and thus also the drains. During the rains or in case of a blockage it is not uncommon, that drainage water flows inside the house.

The drainage has been laid in the area with contributions of around Rs. 2000 from the residents. Not all residents have made this contribution, but from a survey it seems to be uncorrelated with the fact whether a family is owner or renting their residence. Although some residents say that there are municipal workers that are supposed to clean the drains which do

FIGURE 19: DRAINAGE HIGHER THAN THE GROUND LEVEL OF THE HOUSE

not come, others say that no arrangements have been made for maintenance of the drains. The contributions were made to one of the community leaders, who was working together with the political representative of the area (councillor).

The settlement is in some cases literally covered in garbage. Although there is supposed to be a daily pick-up of garbage in the neighbourhood, the municipal workers rarely come by. A public garbage dumping place where trucks pick up the trash is located along the roadside at 5-10 minutes walking distance. Most people throw their rubbish in the direct vicinity, or give it to their children to throw outside. Most 'open' areas are therefore filled with litter. A lot of parts of the community have been literally constructed upon the waste coming from construction sites. While some of the waste is burned, most accumulates, finds its way to the drains and keeps piling up. The areas that are used by children to play, or by adults to sit around in the evening to talk to their neighbours are fully covered with trash.

Although rarely considered in international policy circles, for the inhabitants of the area solid waste is a very important factor to consider with regard to 'sanitation'. Not only because it constitutes 'cleanliness', but it also directly relates to proper drainage of the area. By analysing the matter from a resident's perspective it becomes clear that people are interested in a clean environment for themselves and their children; they are not so interested whether this is a matter of water-related issues (and the corresponding engineering knowledge) or an issue of solid waste management. In the following chapter I will go into more detail on the various events that took place regarding the issue of garbage collection in the area during my stay in Mumbai.

FIGURE 20: BOYS PLAYING CRICKET ON TOP OF GARBAGE

5.5 SUMMARY

By moving from a global level to a neighbourhood level, this chapter has tried to describe how sanitation takes on many forms. During this (conceptual) voyage, my own understanding of what sanitation 'is' and is defined has also changed. A variety of topics have been discussed in this chapter, which I would like to recapitulate below. First I would like to reflect on the various definitions of sanitation; then go into the international debate of sanitation; afterwards I will discuss the aspects at the Indian national level; fourth I will discuss the issues of sanitation as they have arisen in Mumbai.

When considering definitions, it becomes clear that in Garib Nagar the term sanitation is much broader than in the international context which typically only deals with management of faeces. In fact, my own understanding of sanitation has changed accordingly in the research process, for example when I realised that in practice the distinction between solid waste management and wastewater management is irrelevant. I've also understood the subtleties of open defecation; in the past I was never convinced of seeing it as something bad, but I did consider it to be a factor in spreading contagious diseases. However, now I've understood how for many open defecation is not something to be proud of, but just a choice one is practically forced into (e.g. through excessively long queues). I've also seen that open defecation or not, all wastewater of Garib Nagar and surroundings ends up in the same open drains; closed toilets are then not very likely to reduce the spread of pathogens. My conversations with the women from the Right to Pee campaign have also made it extremely clear to me, how sanitation is also as much about urinating as it is about defecating, something which is completely obscured at the international level.

In fact the various ways of addressing sanitation in the international debate appeared indeed very distant to the situation I witnessed in Garib Nagar. The 'improved' sanitation technologies used by the JMP are not feasible in densely populated, low-lying urban areas such as Garib Nagar. The concerns for the environment of the EcoSan movement seem also remote to Mumbai; a reuse based model of sanitation provision would be

impossible, as the storage facilities to dry and compost all the produce would be too large to fit in the city, let alone that it would be culturally accepted[45]. The ideas of international NGOs that access to sanitation plays a role in poverty and child development seem valid, but the construction of (a) toilet (blocks) is not only dependent on money, but mainly on legal authorization (as will become clear in the next chapter). More importantly, the neoliberal model of service provision based on 'user-pays' principles and community management of communal toilet blocks, does not align seamlessly with my findings of Garib Nagar. First, pay-per-use toilets amount to quite high costs for a large family of urban poor; although the individual price may be small, there are a lot of people in one family that survives often on a small salary. Second, even when inhabitants contribute to environmental services, these are often controlled by local leaders (or slumlords) which form a power constellation with the local politician; community management then becomes a utopia.

By considering the important aspects of sanitation at the Indian level the following can be concluded: First, sanitation is closely linked to taboos and notions of impurity in Indian culture. This is in turn also related to caste issues and the practice of scavenging. Any external intervention in India must keep these aspects into consideration. The sensitivity of the topic has also led to a low electoral importance towards sanitation and generally also public underinvestment in sanitary facilities and sewerage systems. In the city, which was long not considered to be of importance for public investment, the division between access to environmental services for rich and poor have been further exacerbated through 'middle-class' capture of these services. Second, it can be stated that at the national level, policies to provide, mainly rural, sanitation have failed through misappropriation and non-utilisation of funds. The latter is an effect of the fact that sanitation projects are not considered interesting to woo electoral support. Attempts at the national level to ask more attention for the topic appear to clash with the persistent cultural sensitivities that surround the topic of sanitation.

The historical analysis of sanitation services in Mumbai has shown how segregated provision of these services has been present from colonial times. Even now, the generally poorer Eastern part of the city is serviced with open drains, while the Western areas are more likely to have covered drains[46]. The reluctance of public authorities to invest in informal settlements and the low availability of land have resulted that the inhabitants of Mumbai's slums are largely dependent on few, poorly maintained toilet blocks. Moreover, access to these is deeply gendered often resulting in far lower numbers of available toilet seats for women; unlike men, women are also obliged to pay when urinating. The Mumbai SSP has failed to materialise into large-scale change for the sanitary conditions of the city's poor. This has been due to the fact that 1) public officials would not allow toilet blocks to be built in 'unrecognised' slums(WSP, 2006); 2) one NGO managed to monopolise the 'civil-society' role and thereby transformed itself into the role of a contractor (Sharma and Bhide, 2005); 3) a blueprint approach of sanitary facilities was preferred over a location specific one (McFarlane, 2008); 4) poor urban users are not always able to pay users' fees (ibid); and 5) local power dynamics play a role in excluding households from the toilet blocks or in appropriation of these (TARU and WEDC, 2005).

My experiences in Garib Nagar, have made it clear to me how sanitation is intrinsically related to 'cleanliness'; and therefore also to solid waste collection and proper drainage of an area. Access to sanitation facilities, as well as what is culturally permissible, is very gendered within Garib Nagar; even to the extent that men claim that the lack of a toilet block is especially bad for women. The residents are well aware that the image of Garib Nagar is heavily dependent on its lack of 'cleanliness', thereby making it clear that sanitation is also very important in the performative sense. The importance of local power plays, on environmental services (and vice versa) became even more evident for me when I realised that the local slumlords have (at least) been active in water provision, toilet fees and drainage contributions.

Juxtaposing all these different enactments of sanitation makes it clear that differences exist and that intervention models based on one form of knowledge are unlikely to be successful in a different context. The

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[45] Nearby one of the open drains, I did see spinach cultivation. However, I suspect (based on similar experiences in Lima) that the farmers using this wastewater will always officially deny doing so.
[46] Although these are also often in a state of disrepair, as I often witnessed in the city.

following chapter will further illustrate this notion as I will describe and analyse the process of trying to improve the 'cleanliness' conditions in Garib Nagar. This will allow me to give an interesting view of popular Indian (electoral) politics, something which the 'sanitation world' at the global level does not consider, but appears to be crucial in the delivery of environmental services to poor informal urban areas.

CHAPTER 6: SANITATION STRUGGLES IN GARIB NAGAR

One of my first interviewees upon my arrival in Mumbai told me that urban sanitation is "*like the most difficult question at an exam, which we always leave until the end*"[47], meaning that provision of sanitation services in urban areas is a very complex task. Building a toilet (block) in an informal settlement of Mumbai involves dealing with issues of culture, society, finances and politics without losing track of the technical aspects such as adequate water provision and drainage. At the time I agreed very much with the man, that it was indeed a complicated and sensitive issue, but one that could be solved in theory. Five months later, when leaving Mumbai, I was convinced of the opposite: providing toilets is not that difficult, it's the dirty game of politics, which makes it so difficult. The lack of toilets is just a reflection of other social inequalities; this in turn makes it an almost impossible problem to solve. So what had happened (to me) in these five months that changed my mind so drastically? This chapter hopefully will provide the answer.

After having discussed in the last three chapters how slums and sanitations are indeed multiple, as they are 'done' in different manners, in this chapter I will bring a final enactment of the concepts 'slum' and 'sanitation'. By doing so, I hope to present a different way of 'doing' sanitation (and slums for that matter), one which is based on institutionalised mechanisms of marginalisation and oppression. I will present this enactment by describing my experiences and the events that I witnessed during my research period in a slum community in Mumbai. Hopefully the descriptions of these events I participated in, as illustrated throughout this chapter, will explain how I changed my views on the topic of provision of sanitary facilities. However, by developing an alternative narrative I also hope to challenge the dominant ways of 'doing' sanitation and slums (as presented in the previous chapters) as they fail in my perspective to highlight the injustice done to the marginalised and oppressed of Mumbai.

In this chapter I will mainly provide a chronicle of my main activity in Mumbai: my collaboration with YUVA Mumbai, a progressive NGO empowering the oppressed and marginalised of the city, in carrying out a study on water and sanitation in the small slum community of Garib Nagar. The findings from the collaborative research and activities to organise and mobilise the community, will be used here to provide a case study that will deepen the understanding of the complexity around sanitation in slum areas. Various empirical case studies found in literature will be used as comparative material.

This chapter is set up as follows: it starts off by describing the 'water and sanitation study in Garib Nagar' in which I collaborated. I will describe the series of actions and events that the research team (myself included) of this study took in order to improve the sanitary conditions of Garib Nagar. Subsequently, I will use this case study to relate to the mechanisms that allow for a politicised model of public service provision, as it takes place in poor urban areas of Mumbai. The consequences of this model of delivering municipal services, which can be labelled 'political society' (Chatterjee, 2004), will be discussed in a third section. The last part of this chapter summarizes the findings of these sections.

6.1 THE ACTION-RESEARCH PROCESS

Despite the international attention that Garib Nagar had received after the success of "Slumdog Millionaire" and the media attention after a large fire destroyed the settlement, the sanitary situation of the area is still in a precarious situation: Drainage is poor, parts of the area are waterlogged with sewage water, garbage can be found in many parts of the settlement, a large number of men defecate outside while the women have to

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[47] Interview with Sudhakar S. Kini; Honorary Chief Architect – Sulabh international Social Service Organisation – Maharashtra Office - 17th of August 2012.

queue for a long time to access public pay-per-use toilets. It was in this context that YUVA, under the *Umeed*[48] project, had decided to address the sanitary needs of the area.

The basis of the partnership between YUVA and me was formed on the conviction that the problems that communities face with regard to access to sanitation are part of a larger social struggle; it is YUVA's philosophy that such issues must be seen in the same context as housing problems, women's rights, child rights and immigrant workers' rights. This approach, in which I felt very much at ideological ease, entails yet another way of 'doing' slums and sanitation, as will become clear towards the end of the chapter.

The partnership between YUVA and me quickly became concrete as I, together with inputs from YUVA, wrote the research proposal that would guide the study on water and sanitation in Garib Nagar. This section describes, in a chronological order, the series of events that took place over the course of the research period. The description is very personal and will therefore also contain my observations and reflections of these events.

6.1.1 THE SET-UP

This collaborative action research with YUVA included four research objectives. First, the research set out to understand the community's current situation regarding water and sanitation and also their legal status and the political context; as these two factors are deeply intertwined in Mumbai, it is essential to understand both. Second, the study aimed to gain insights in the community's wishes regarding water and sanitation as well as their actions in the past to obtain these services. A third part of the study consisted of linking the various (inter)national standards regarding water and sanitation provision to the current situation in the neighbourhood. An attempt was made to translate the problems and wishes of the community (regarding sanitary services) into pragmatic maps and design criteria. The fourth research objective was to assess the possibilities for advocacy purposes and policy recommendations, both on the side of YUVA as on that of the Garib Nagar. In other words this would entail an assessment on how to use the results of the study to bring about change for the community and for future work of YUVA. (YUVA, 2012b)

In practice all the objectives stated above meant that the research was characterised by two components, an "action" and a "research" part; these elements were linked and evolved simultaneously. One of the first steps was to understand the community's needs, wishes and actions that were taken in the past; also a spatial understanding as to where the problems manifested themselves was required. One of the tools used to obtain this understanding was a participatory appraisal exercise. This technique, developed since the 1980s, takes its inspiration from the idea that people should be in charge of their own development; and that thus the knowledge of those that will be affected by an intervention should be put at the first place (Chambers, 2012). This belief translates into a series of practices and methods that allow people to express their knowledge; in our case we chose for a participatory mapping exercise with the concerned community. However, before carrying out this exercise, a workshop within the *Umeed* organisation was held where the philosophy behind participatory appraisals was explained. The goal of this workshop, which was held by myself and two of my research colleagues within *Umeed,* was to explain (and field-test) this methodology among all the *Umeed* staff. This workshop was held with 20-30 participants from *Umeed* and consisted of an explanation, a transect walk through one slum community, a mapping exercise and a session in which the workshop was evaluated.

Some days after this workshop we held two simultaneous mapping sessions in Garib Nagar. The facilitating staff of the 'water and sanitation study' often varied, as all colleagues of mine were working on several projects at the same time. On the day of the mapping sessions in Garib Nagar, three facilitators from *Umeed* were

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[48] *Umeed* is a project carried out by four partner organisations, YUVA is one of these. I will refer in this chapter to *Umeed* when talking about activities carried out by more than one organisation. If the activity is only related to YUVA, I will mention this accordingly. See chapter two for a further description of YUVA's activities and the *Umeed* project.

present, both 'teams' consisted of two men and a woman; I was one of the facilitators for one of these teams and I also had a translator present. Hereafter, I will describe the mapping session I participated in with two colleagues and a translator.

As slum pockets are quite congested there was only space to hold this exercise just outside the area. A transect walk was skipped, as the residents argued that they already know their neighbourhood; however, after the mapping exercise, the residents took us into their neighbourhood as they were keen to show us their problems regarding water and sanitation. This exercise attracted a lot of attention: residents came and went, people passing by on the skywalk above stopped to look and some even came down to see what was happening. In the session we asked the residents to draw a map of Garib Nagar in which the problems of the area were indicated. This generated a lively discussion on what the issues of Garib Nagar were according to them. At the end of the mapping exercise we asked the residents to rank the issues that they mentioned, from most to least urgent.

Interestingly enough, both simultaneous sessions yielded the same "results", the residents listed and ranked the same topics in the same order. The first and foremost issue was the need for toilets, after that the residents listed the issue of drainage and in third place the residents mentioned the garbage problem as a point of concern of Garib Nagar. The participants of the mapping session I participated in, also directly made clear to

us that the garbage problem was very much related to the poor drainage of the area.

Although this exercise included some setbacks, for example some women had to leave as they were supposed to cook lunch, it was also a success: we understood that (and started our partnership with) one youth group was already active on the issue of toilets. The visual effect of mapping the problems in relation to the area, made some residents realise that garbage was present throughout the entire neighbourhood. This also made them realise of the consequences of their own actions, as they realised that this garbage was deposited in the entire area by the residents themselves. Last, but not least, various colleagues of mine who facilitated such a

FIGURE 21: THE PARTICIPATORY ASSEMENT AND MAPPING EXERCISE

participatory mapping exercise for the first time, explained to me that they were surprised how much the residents say when you let them speak.

Of course, as it was the first time that I and my *Umeed* colleagues held such a participatory appraisal, one could have doubts to which extent it was 'participatory'. Some of my colleagues did dominate the conversation, as that is what they often do when working in the community[49]. However, despite the dominant character of some colleagues of mine, the residents were still very vocal and we managed to gain valuable information from the area. I remember going home that day in a rather euphoric state, as it was my first encounter with the residents of Garib Nagar and also my first 'real' mapping exercise.

6.1.2 INITIAL RESULTS

Alongside this mapping exercise a series of questions were prepared to better understand the residents' situation and community's status. The questionnaire was initially prepared by me and adapted after several

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[49] I noticed big differences amon the *Umeed* staff. YUVA people were more 'listeners' and the staff of a partner organisation CCDT were more 'talkers'. This difference was pointed out to me by one of my young friends in Garib Nagar, who told me that he didn't like those people that came to the area and told him what he should do.

review rounds with my YUVA 'boss'[50] and *Umeed* colleagues. In a session with my supervisor and direct colleagues within *Umeed*, it was decided that all three topics of concern would be tackled. This meant that the questionnaire grew beyond what was practically feasible to ask residents. Within the research group we[51] were also concerned as to how honestly residents might answer our questions. Therefore we decided [52] that a series of topics would be discussed in focus group discussions (FGDs). We chose to organise and prepare different FGDs to obtain age and gender segregated data; accordingly we listed specific questions for each group, as shown in the table below. The topics that were discussed were: 1) the community, status and history; 2) water; 3) toilets; and 4) garbage.

TABLE 20: FOCUS GROUP DISCUSSION TOPICS

	Male	*Female*
8-13 years	Drawing session	
13-18 years	General questions; adolescent problems	General questions; adolescent problems; menstruation
18-35 years	All general questions	All general questions; menstruation
55+	General questions; community history; problems for elderly	General questions; community history; problems for elderly

In the same period that we held the FGDs, we also engaged with another process. Contacts were set up between the research team and two youth groups. Initial contacts were also made with the local elected representative, a councillor from Congress party. We, the research team, made a joint visit with one of Garib Nagar's youth group, to the Ward office, where we managed to put our issues forward to the assistant commissioner, the most senior staff member at the ward district level. A series of visits were also made to various city departments to obtain official data concerning the area such as land ownership, future plans and legal status of the community. Another effort of ours was directed at finding the no-objection certificate (NOC) that was issued for the construction of the previous toilet block.

This period was marked by an alteration of success and setbacks. The visits to the various city departments yielded little results other than being sent from one office to the other, a typical response from bureaucratic institutions to shift responsibilities to another institution. Other departments declared that they could not approve construction of a toilet. Finding the previous NOC also proved more difficult than planned, the responsible department (Maharashtra Housing and Area Development Authority; MHADA) told us that they could not produce such a document without a written consent from the local Member of Parliament (MP). Obtaining a new NOC was also not possible; in a telephonic plea from the councillor to a connection of hers in the railways department[53] a new NOC was refused. The visit to the ward office was even more disappointing as it resulted in the assistant commissioner insulting the community members in their presence, claiming that they were all illegal immigrants from Bangladesh that wanted to live in filth. Moreover, he claimed that every time BMC tried to provide services, these were stolen or damaged. Adding insult to injury, the assistant commissioner claimed that the neighbourhood would be demolished soon anyway, as the land was needed by the Railways. However, probably noticing that my boss to whom he was holding this plea, without looking the

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[50] This is Sitaram Shelar, he is a city wide coordinator for YUVA and very active within the *Umeed* project. He was my direct supervisor. The word 'boss' is very much part of the *Mumbaikar's* lexicon. It's used to refer to everyone, from the rickshaw-wala to even a Bollywood stars.

[51] I generally use the term 'we' to indicate the team working on the 'water and sanitation study in Garib Nagar'.

[52] The decisions were made in meetings of which the composition often varied. The more or less fixed elements included my supervisor Sitaram, my colleague researcher Sabah (explained in chapter 2) and my direct colleague Raju (both active in YUVA and *Umeed*). Other people that were often present were colleagues of YUVA and CCDT which worked in the *Umeed* project.

[53] Although I was present when the call was made, I am unaware who she actually spoke to.

community youth group in the face, was starting to get agitated; in an act of compassionate generosity, he conceded to us that he would see if something could be done about the garbage collection.

A moment of relative euphoria was also experienced when the councillor decided to visit the neighbourhood. On that day, before her visit, the men from the solid waste management department showed up and started to clean up the garbage. This incensed the members of the youth group who demanded that they stop and not clean the area only before the councillor's visit. These cleaners halted their work and when the councillor arrived, she was shown the whole neighbourhood in all its ugly facets. The councillor,

FIGURE 22: THE COUNCILLOR IS BEING SHOWN THE OLD DISFUNCTIONAL TOILET BLOCK UPON HER VISIT.

dressed in a fancy bright red sari and wearing shiny jewellery, looked slightly dismayed as she was led through the muddy area surrounded by a large group of men from the youth group. She declared that she did have funds available to construct a new toilet block or put new drainage in place; however, she stated that she would provide 7 garbage containers to the area so that the residents could properly dispose of their waste. Despite this small concession, the youth group, my colleagues and I were quite uplifted by the fact that the councillor had actually visited the area and seen the problems first-hand.

6.1.3 DIFFERENT APPROACHES

Meanwhile, even though we acted as one team in the community and during the visit of the councillor, I was starting to notice the differences between the various partner organisations within the *Umeed* project. Below, I will list a couple of events that explain this difference in mind-set.

One day I met the coordinator from Plan India at the project's office. Our chat was brief, but two aspects were crucial in my view. The first was a remark he made: "*if they would have wanted a toilet, they would have built one by now.*" In his view if the inhabitants had the money to rebuild a house, then they would have also had the money to rebuild a toilet if they wanted one. The second aspect that stood out was his proposed solution; he stated that there was money available from Plan to possibly finance a mobile toilet block. This idea was quickly discarded in the following days due to logistical problems (where to park the mobile toilet?) and the available funds were eventually directed towards another project: weekly football training for the kids from the neighbourhood.

Before the councillor's promise to provide the garbage bins, I had gone south into the city with some colleagues from one of the partner organisations, CCDT. Our mission was to ask around for prices of garbage containers, to see whether it was possible to provide these through the *Umeed* project. These turned out to be rather expensive, but there were funds for a few of these, it was reasoned. This organisation had also carried out cleanliness campaigns in the other areas within the *Umeed* project; they had informed people of hygienic garbage collection and proper disposal.

A second, less prominent youth group in the area had also taken some action. We were in contact with these young men since a while and one day these decided to clean up an area of the slum themselves. They got together on Sunday and got all the trash together of a whole area and managed to get this collected by the municipality. Their action was a big success in terms of cleaning up the area, but my boss questioned for how long this success would last. His worry was that the group's plan to carry out these cleaning activities every Sunday would not be sustainable on the long run.

FIGURE 23: THE 'SOUTH' YOUTH GROUP CLEANING UP THE AREA (PHOTO BY SAJJAD SHAIKH

The last, more telling incident, took place after the FGDs. After analysing the FGDs, my boss, the co-researcher from TISS and me, agreed that some data were still missing. These data would have to be obtained through a questionnaire survey in the neighbourhood. Over the course of the following days a questionnaire was prepared with a series of questions regarding the amounts spent per household for water, toilet and garbage; the initial investment costs; the person they paid the fees to; the legality of water connections; amount of water received; and monthly income. Once we tried to conduct the questionnaire we encountered quite some opposition. The fear of my colleagues from the other NGO was that if we started gathering data on monthly water bills and connection costs we risked upsetting the fragile political equilibrium in the area; I suspect that they were also worried that we might also be jeopardising the other work carried out through *Umeed* in the area, such as vaccination campaigns and malnourishment tracking. My idea of making a map of the drinking water and drainage network of the area was also met with suspicion within the community. My boss and co-researcher from YUVA both knew that unless the connections are legal, the community have no rights to fight evictions and that the inhabitants are probably paying the middlemen too much for their water connections. However, also the local youth group was starting to get impatient. They were asking why they had to go along to meet (and get insulted by) bureaucrats, when they perfectly well knew that these people were not going to help them. Why were we asking questions about water connections? They just wanted money from *Umeed* so that they could get working on the new toilet. My boss explained that YUVA did not work like that and that besides they did not have that kind of money available. It was decided that we would continue to work with, and put pressure on, the local politicians to try to convince them to provide services to the area.

These four short examples show how different organisations apply different approaches to tackling a problem. The partner organisations within *Umeed*, Plan and CCDT, have a more 'hands on' approach: if something like a toilet or a garbage bin is needed, we'll get it and the problem is solved. Complementary to this, they focus on providing information on how to use these facilities properly. YUVA's approach, on the other hand, is more political in nature. Their method consists more of putting pressure on political figures and executive institutions so as to provide the services to the community; the implicit idea is that in the process the residents of the area gain self-confidence to approach these institutions themselves. The first method is probably more pragmatic and resolves urgent problems, while the latter is intended to be a more sustainable approach on the long run. The problem of the first tactic is that if something breaks down the situation is back at square one, unless the NGO keeps paying for the services; on the other hand, YUVA's method only works if the community is willing to participate, and even then, results have to materialise quickly to maintain the community support.

Box 6.1.Who owns the land?

In order to construct a toilet in the slum community, it is necessary to obtain a no-objection certificate (NOC) from the land owner. But who is the land owner? As the community is located next to the railway tracks, it is likely that Railways owns the land; but it also lies on top of the water pipeline that brings water to central and south Mumbai, that land belongs to BMC. A combination of both could be possible , but where are the exact borders?

These questions are not that easy to answer as we found out in practice. With the research team we tried to find out the exact ownership of the land, but the city offices responsible for the land records claim that these records only exist for slum areas once plans are made for land redevelopment. When I heard this, I suspected the bureaucrat in service had just made up an excuse, so that he did not have to help us. However, further research pointed out that land ownership is indeed unclear and contested.

In newspaper clippings from just after the fire in the area, the Railway department declared that the land was not their property, as it had been leased to the Fisheries department 40 years before. This was probably an attempt to deny any responsibility towards the afflicted residents. After a couple of weeks the state of Maharashtra declared that the land belonged to the Railways department (which fall under central Indian government); therefore there was no rehabilitation policy for the slum dwellers, only a Rs.25 000 compensation per affected household.

However, in another dispute the State and the Railways were both making claims on an adjacent piece of land which is currently used by the men of the area to relief themselves in the open. This area was to be developed commercially and both institutions therefore claimed the property of the land. A High court judge finally ruled in favour of the Railways department; the verdict in this case also meant that they had ownership of the slum pocket.

One anonymous Maharashtra state official quoted in a newspaper declared to be very happy that the ownership of the plot had been granted to the Railways, as this would reduce the chance that the land would be used to favour high state officials over regular Mumbaikers. "Otherwise, the state would have gifted this prime land for construction of housing societies for IAS officials or politicians. Nothing remains with us here. Now, we will able to raise sufficient funds for MUTP II [an infrastructure project] for better infrastructure for the city."

Sources: Hindustan Times, Times of India, DNA, Mumbai Mirror
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6.1.4 POLITICAL GAMES

The continued visits to the various city agencies proved to be futile over and over again; the bureaucrats often argued that the area was illegal and that therefore they couldn't do anything. Often, this explanation was accompanied with some generalisation on how the residents of the area are dirty and uneducated; in some cases these prejudices were even worse as they evolved into religious insults. It therefore became clear that the most feasible way to realise a quick success in terms of construction of a new toilet block, as this was still the top priority, was to work together with the local MP seeking re-election.

One youth group, the more prominent one, had already sent letters to this MP and was openly affiliated with her political party, the Congress party; they had even organised for her to visit the neighbourhood, but

unfortunately she wasn't able to make it on that particular day. The MP has various areas under her constituency, each area has its own electoral committee president, which is in contact with the MP's personal assistant (PA). The electoral committee president is in contact with the leaders of the activist groups from each neighbourhood. So the youth group of the area was in contact with this man, called Javed[54]. The contact between the two was friendly, but also slightly patronising I suspect; Javed would make promises to the youth group and the youth group would have to mobilise voters in return. The youth group, and especially its leader, were aspiring to gain power in the neighbourhood, as there was a power vacuum left by the old community leader who was hiding from the police. Javed, I was said, wanted probably to run for councillor at the next elections, he wanted to establish good contacts in the neighbourhood as well as to be recognised by the MP for his good work. As an aspiring politician he had to make promises to keep the various groups happy, but the youth groups also wanted him to keep his promises; on various occasions I heard people from the youth group state "we are now working with Javed, but if he doesn't deliver we will go directly to the MP ourselves" or even "we will not support them [Congress] if they don't start work [on the toilet]".

Meanwhile, as we were becoming more aware of the youth group's political aspirations, YUVA's strategy shifted its focus towards the women's group. The area used to have two women's groups, of which only one still existed in a diluted form. As a research team we started to bring this group back to life, by organising meetings with them and trying to bring them in contact with the women's groups from the other areas under the *Umeed* project. Eventually it was decided that we would go with the women's group to the MP ourselves. Here it is useful to explain how politicians in India are approached. The politician has so called 'office hours' during which you can go to their office and ask them their help for your cause. This can be a personal issue such as a delayed passport request, but also a donation for an outdoor shrine during one of the religious festivals.

FIGURE 24: THE MP'S OFFICE

Obviously the higher up a politician is on the hierarchical ladder, the less chance you have of talking to him/her. Politicians also have a personal fund, the Local Area Development (LAD) Fund, which they can use to help their constituency. The allocated amounts to this LAD fund have shot up at the municipal, state and national level throughout the entire country; as all elected politicians realise that the LAD fund is a useful tool, especially during election campaigns. It was discussed in the community with the youth group that we would go to the MP ourselves, the men said they supported the action 'behind the curtains'; they knew that they couldn't go themselves as they were already working with Javed, but they also knew it was good to put some pressure on him. Opposing the women's group action would have probably only caused internal animosity anyway.

FIGURE 25: THE WOMEN'S GROUP VISIT THE MP

The location of the MP's office was at the ground floor of her house, in an extremely posh neighbourhood on the other side of the tracks. We were waiting in a room that was decorated with pictures of her parents; he was a famous Hindi actor, politician and benefactor of Hindu religion while she was also an actress, but of Muslim beliefs. Other pictures in the room were of Gandhi, other Congress heroes and various marches and popular struggles. When the MP finally arrived, all people waiting gathered around her desk to get a turn to discuss their issues. Once it was the women's group's turn they told her of their issues; a letter specifying the problems was also

[54] pseudonym

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handed over. The MP seemed interested in the women's story, but her PA was less charmed by the presence of the women. As the women were talking to the MP, I started talking to the PA together with my colleague Raju. He started off by stating that these uneducated women had no place talking to the MP; that they were the cause of their own problems. Slowly, as he noticed that we were part of the same company and that the MP was willing to listen to the women, he started to shift his position towards a friendlier stance. Eventually it was agreed that the MP would visit the neighbourhood on the following Saturday.

Upon our departure we ran into Javed, as he was just arriving to the MP's house; he was also displeased to find us there. One of the first things he asked was whether the women had told the MP of all the good work he had done for the community. He told the women they should come to him and not go to the MP directly. Later he tried to convince the women that he did so many good things for the community, he had worked hard to get two lampposts powered by solar panels installed in the neighbourhood; the women replied that they needed a toilet, not lampposts. However, Javed could also count on some supporters within the women's group; one woman whom I had not seen before, was apparently also a Congress party worker, she had showed up just on that day and pretended that the women's group were part of her following. As Sitaram, my boss, got more and more agitated by Javed's presence, Raju (my colleague and friend), Sitaram and I decided to leave the women alone with him and head back to our office.

Box 6.2 Politics of rumours

Before the MP's visit YUVA decided it was good to prepare the women's group. In order to get the message across it was argued that it would be better that not all would talk at the same time. We scheduled a meeting to decide who would speak on which topic. This idea and the task division were agreed upon without problems, however, a new issue popped up. That morning a rumour had spread that a part of the neighbourhood would be demolished. It was said that as one of the skywalk bridges would be expanded, all the houses below it would be demolished. This rumour created some division among the women group, as some felt that this should also be discussed with the MP while others didn't. Several YUVA staff believed that the rumour was purposely spread by one of the old community leaders just before the MP's visit to create discordance.

FIGURE 26: THE MP IS LED THROUGH THE AREA

The day the MP visited the area, all the groups mentioned above came together. Javed and the PA had planned everything and formed a welcome committee with the youth group. But there was also the group of women and YUVA, cooperating in a struggle to get some of the MP's time and attention. This was set in the middle of a larger crowd of interested residents and bystanders; it's not every day that a famous MP visits a slum. The MP appeared slightly uncomfortable at her arrival when some firecrackers were lit and supporters shouted slogans in her favour. The women didn't hesitate to push and make way for themselves within the welcome committee; from the moment the MP arrived they managed to stick by her side even though the party workers were trying desperately hard to guide her through the area with their own programme. All groups managed to get something out of the visit: the women were able to speak with the MP about the toilet; YUVA and *Umeed* staff managed to show her the office and child centre in the community; the party workers managed to keep her away from the waterlogged alleys and the broken toilet building and rather steer her to the youth group's meeting place where they gathered for the obligatory photo moment.

The MP appeared to be displeased by the +1 and +2 constructions in the neighbourhoods; the second and third floors that people had built on top of their house. While the ground floor might be tolerated by the authorities, the first and second floors are considered illegal. The MP especially regretted that the residents had constructed these, without asking for her permission. She proposed a resettlement scheme for all the residents during her visit, as it was proposed after the big fire a year before. However, she said she was also very happy to see so many good initiatives to come out of the neighbourhood. She particularly appreciated that people were not only listing their problems, but also

FIGURE 27: THE YOUTH GROUP WITH THE MP

provided recommendations as how to improve. She was looking forward to receive these recommendations on paper. After two hours the MP left for the next neighbourhood on her list.

6.1.5 WORK COMMENCES (OR PERHAPS NOT?)

After the MP's visit, all groups were enthusiastic. The women's group were happy that they managed to get the MP to the area and discuss their issues; the MP had promised them a new toilet block. The youth group was also delighted with all the attention they received from the MP and the community; all topics of disagreement with YUVA were also immediately cleared. YUVA staff was happy to have booked a success with the kids' centre and the MP's elaborate attention for that. Of course, all stated that it was a pity that the MP had not seen the old toilet block or the waterlogged areas, but at least she had made hard promises.

On the other hand, the promised garbage bins after the councillor's visit never really materialised. Two garbage bins were delivered, the rest would come later; these never came. The residents were still using the two bins for collection but after a short while these were not emptied on a regular basis. The garbage heaped up once again around the bins. On one day the two bins had disappeared; it was unclear if somebody had stolen them or if the municipal cleaners had shifted them somewhere else. Some residents feared that these types of false promises would also mark the construction of the new toilet block. It was at this stage that, after preparing the "problems and recommendations" report for the MP that I left on a personal leave from the project.

Upon my return to Mumbai nothing had changed, some of my friends from the neighbourhood were starting to become disillusioned. However, one day I was called to come as fast as possible to the dysfunctional neighbourhood toilet; apparently something was happening. To my joy, I found out that work had commenced on the toilet block; they were starting to take down the old half broken structure in order to rebuild the sanitary facilities. I was even told that the MP had decided to do so after she had read the very same report that I had written. We were told that the youth group had organised a meeting to thank the Congress party. When I arrived at this meeting with my colleague Raju and my girlfriend (who was visiting me at the time) we saw that the meeting was a bit bigger than expected. It wasn't a small "thank you" meeting, but rather a constituency event of the Congress party to which all the various groups of neighbourhood activists had been invited. As we arrived Javed came towards us, in an unusually friendly stance; he immediately told my girlfriend "you know when someone builds a house nobody comes, but when you build a toilet they call the police". We were all quite surprised, partly because I never heard him speak English before, but also because he told all this to my girlfriend who wasn't at all involved in the matter. Javed left immediately to greet other people and a couple of minutes later he was involved in a fight. As the brawl quietened down, we found out that the fight between Javed and this other man, had broken out over the toilet block. It seemed that this man, also of the Congress party, had called the police to inspect the construction of the toilet block which was done without the required permits. Javed had accused him of obstructing party work and that was apparently enough to start the fight.

FIGURE 28: THE NEW TOILET BLOCK IN GARIB NAGAR (PHOTO BY UMEED)

In the course of the following days the work on the old toilet block continued. It became clear that the start of the work was chosen strategically to reinforce the support of the youth group to the Congress party. It also became clear that the community's wishes for the new toilet block were not being met. The request for the new toilet block to be of two floors with ten seats for men and ten for women was discarded for the one floor with six seats each. Despite some disappointment, most residents were already happy that something was happening. The research team prepared a document with all the community's wishes and design criteria, hoping that these might be heard. However, just as mysteriously as the workers suddenly appeared, one day they stopped coming. Until my departure from India the work had not been resumed.

However, a couple of months later I received an email with pictures of the shiny new toilet block. My (ex-)colleague told me that through regular follow ups with the MP and Javed, the work had finally commenced again and this time it was brought to completion.

6.2 POLITICS OF SERVICE PROVISION

After this chronological account it is worthwhile to reflect on the series of events that took place. In this section I will focus on the various aspects that relate to the politics of service provision and the links that this has with the shaping and perpetuating of 'slum identities'. This section therefore relates to (repeated) performance, but never forgetting that this has very material implications.

6.2.1 ILLEGALITY

At the outset of the study, based on YUVA's previous experience of working in similar communities, it resulted that one of the most crucial aspects to obtain sanitation services was to know the legal status of the community. Some slum settlements in Mumbai are 'recognised' and some have even been legalised, these neighbourhoods are therefore formally allowed to obtain public services (e.g. water) from the municipal corporation. The legality of a community depends of various factors, as will be explained below. To find out whether a slum is legal, recognised etc. is therefore quite a complicated task. Nonetheless, it was argued by my supervisor of YUVA that we should proceed to find out the legal status of Garib Nagar, as this is crucial in relation to obtaining public services from the BMC.

The reasoning behind this was partly formed by YUVA's rights based approach. In such an approach one analyses the group of right holders; the right at stake; and the institution that should fulfil this right. In our 'water and sanitation study' we therefore set out to prove that: 1) the residents of the area are indeed right holders regarding municipal service provision; 2) water and sanitation are (human and/or constitutional) rights of every citizen; 3) and that a (state or municipal) institution is obliged to fulfil these rights towards its citizens. On the other side the concerned institutions try equally hard to refute such claims. The latter two points are undermined by not recognising water and sanitation as a human right (hence YUVA's High Court litigation procedure described in box 3.3) and by shifting responsibility from one institution to another, thereby making it unclear which office is actually responsible. The first point however, is undermined by claiming that a slum and its residents are illegal, and thus have no entitlements to any service; in a 1996 circular this is even specifically articulated with regards to the provision of water (Government of Maharashtra - Department of Urban Development, 1996). Finding out what the legal status of the community is, seemed therefore crucial in countering official reasoning that legitimizes denial of public services provision.

For officials this seems a simple argument to win as all slums are (considered) illegal; however in Mumbai there are subtle classifications that can make a large difference. A slum can be recognised or unrecognised; the date it is established and the date it is officially registered in the city's records are of great importance as pre-1995

slums are tolerated. Also the date that a household is registered impacts on their entitlements to housing in the city. These factors don't necessary influence the legality of the slum, but rather whether the inhabitants have the right to rehabilitation in case of redevelopment or an eviction. Other aspects of importance are the bio-physical and geographical location of the settlement; slopes or flood-prone land are considered 'hazardous', while settlements located on locations that violate legal or master plan norms are considered 'objectionable' slums. The latter is also related to the ownership of the land on which the settlement is located.

Furthermore, even to prove that one is in fact legally residing in such an in a legalised, recognised or tolerated slum, which would grant access to a variety of services and state benefits, is not an easy task. For this purpose, it is necessary to provide a whole series of documents. Obtaining these documents is a difficult task that requires a great deal of time and patience in order to deal with the bureaucratic system. One of projects carried out by YUVA under the *Umeed* consortium is to facilitate residents with obtaining these documents, the so-called 'right to entitlement'. In a way one could say this is a deeply political act. On the other hand, even documents are not eternal. Disaster strikes often in slums, as proved by the large fire and the floods in the research area. Documents are lost that way and obtaining them again requires another time and money consuming process of wandering through a swamp of bureaucracy.

Thus, even though we managed to establish the fact that the community has been established before 1995, this fact is rendered useless unless there are documents to prove it. However, obtaining these types of documents may also attract unwanted attention to the community or household. When we as a research team discussed this issue of documentation and its importance, we appeared not to get much response from the community members. It may be that the community members that obtain services through community leaders or local politicians do not see the need for dealing with the bureaucracies, it may also well be that the power position of the former depends on this unavailability of legal documents.

Officials are also actively dismissing any responsibility towards slums and the inhabitants of these, one of the main arguments that they use is indeed the fact that these are illegal. This is partly done in a discursive manner, examples I have heard are that "the area is illegal"; "the residents are illegal"; "the structures they build are illegal". The latter refers to how many floors a slum structure has, the general rule is that a ground area and a top floor (G+1 structure) is allowed or tolerated, anything above that is considered illegal. The second example refers to the common statement that slum dwellers are in fact illegal (Bangladeshi) immigrants; this is something that can be commonly heard in middle class circles and read in tabloid newspapers. It is also something that the assistant commissioner, the executive 'chief' of the ward, literally said. To name those that live in a slum 'encroachers' is also a commonly used discursive tactic. On the other hand illegality is also constructed and justified by the absence of documents that would prove the contrary; this reversed burden of proof then becomes a vicious circle in which the authority is always right.

Another aspect that is closely related to the aspect of (il)legality is that of ownership. This partly arises from the lack of distinction between the right of ownership and the right to use the land. If one then states that those that are living on a piece of land are doing so illegally, it would seem logic to assume that the land belongs to someone else. However, as illustrated above in box 5.1, this is not always the case. Illegality is thus a perennial condition, regardless of the fact whether some other actor is making claims to that land or not. In fact denying ownership of the land is a way of renouncing any responsibility towards those that live on it. Thus, until a new formal designation is officially declared for a piece of land, the 'slum' and its inhabitants are caught in this grey zone of illegality and unclear ownership.

6.2.2 GROUP IDENTITY

As an outsider, the slum community may appear to be singular and unified. This image may also be something that is actively cultivated. To a certain extent the community members portray themselves as victims towards outsiders. I clearly noticed this during the questionnaires and at the councillor's visit. During one incident I remember how a woman we were interviewing for our questionnaire stated: "look how they let us live"

(referring to the lack of drainage in front of her house). After the interview one of my co-researchers expressed in response: "What does this woman expect?" She is living next to the tracks, Railways is not there for that" (referring to the provision of drainage). My colleague's response should be seen not as an outsider's insensitivity, but rather as the outcome of a struggle that one faces when working in such an area. On one side the slum community portrays itself as a community of victims, while the middle class general public and even more so the responsible bureaucrats see them as perpetrators.

Outsiders view the lack of services and the ubiquitous filth as the results of the community's own actions. It is after all the people of the community that throw their garbage outside, which later blocks the drains. Of course one may wonder where these people should throw their garbage if no services are provided to them. In fact by not providing environmental services the state enables a self-fulfilling prophecy: slum residents, which are considered 'dirty' and 'illegal' by city officials, are denied environmental services. This results in accumulation of garbage, wastewater allowing for diseases to spread easier, thereby resulting in confirmations of the stereotype of the poor as 'filthy'.

Personally, I did not consider those residing in Garib Nagar to be dirty or filthy[55], despite the presence of garbage everywhere in the area. My own middle-class house mates in a flat of suburban Mumbai, also repeatedly threw small garbage out of the window, as this was considered normal[56]. Contrary to popular belief (at least among my friends in the Netherlands), Garib Nagar did not smell bad either. The only places that I thought to smell bad in Mumbai, were the large garbage collection points along the roads.

However, when working in Garib Nagar, I was repeatedly wondering where personal responsibility ends and the state's obligation towards its citizens begins (or the other way around). The option one chooses is often justified by group identities and the characteristics attributed to them. Community members actively portray themselves as victims suffering from poverty; while the state officials claim that these are uneducated and dirty people "who want to live in filth"[57].

While the community may profile itself as a single entity towards the outside world, it becomes clear that inside the community, there are different groups, each pursuing their own agenda. As the action research proceeded we, the research team, became more and more aware of the importance of which group we associated ourselves to. There are delicate power dynamics inside the community and overtly affiliating with one group could mean that another group feels alienated. As explained in chapter 3, the area is divided in two; these two fractions are more or less geographically distinct and each had a community leader in the past. At the time of the research, the power of these leaders was eroded, but the areas were still referred to by using their names. During the research period, we worked with three groups within the community. The first group was, as described above, a powerful youth group from the 'north side' of the community (Salim Light-side), consisting of a dozen men from age 20 to 30; this was the group affiliated with the Congress party. A second less powerful youth group, consisted of a smaller amount of (active) members of young men of 18-22 from the 'south side' of the neighbourhood (Salim Mobile-side). These were less prominent in their neighbourhood, and some did frequent college, unique in the community; this was the group that cleaned up an area by themselves. A third group we actively managed to mobilise was a women's group also from Salim Mobile's side; this group had existed in the past but had somehow faded. Through *Umeed* and YUVA's activities with these women, the group was starting to come back to life. A women's group from Salim Light's side had existed in the past, but this was also defunct.

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[55] This is almost strange to state, but I do so to be complete.
[56] This practice of throwing small things out of the window was also explained to me by an writer and editor of a well-known weekly journal. Interview with Kalpana Sharma at the office of 'Economical and Political Weekly' 1-10-2012
[57] As stated by the Assistant Commissioner of the respective ward.

FIGURE 29: THE NORTH-SIDE YOUTH GROUP AND THE MP ON THE SAME BANNER

The youth group from north side of the community was the first group we interacted with as a research team. This group was a recognizable presence in the community with their own 'reading space', a sort of hangout where men sit and chat. Some of the group's members were also active in the electricity provision and repairs in the area. This youth group had already written letters in the past to the MP, requesting for funds for a new toilet block. The banner depicted in figure 8 appeared during the research process in this reading space, as the group's affiliation with the Congress party became more and more explicit; before that there was already a Congress banner. We had repeated chats and meetings with this youth group; once they also came to the *Umeed* office and on two occasions we went together to the BMC ward office. However, wenoticed that the members of this youth group were very interested in gaining control of Garib Nagar. As the area's previous leaders had left Garib Nagar because of legal persecution, there was a 'power vacuum' in the community; my supervisor was under the opinion that and especially its leader were trying to fill this void. Therefore, we decided to shift our attention towards other groups in the community in order to continue to work towards the construction of a toilet block, without letting the youth group take all the credit for it. This period coincided with the increased collaboration between the youth group and the Congress party, as illustrated in the figure above.

Although considered a 'new' entity in Garib Nagar, as opposed to the old leaders, the men of this youth group were quite traditional. The group consisted of young married men, most of whom wore traditional *kurtas* on Friday and some also wore the long beard that is traditional of the more orthodox Muslim men. It was this group that demanded the centre stage during the MP's visit; they had also previously attempted to get her to visit the area. On the day she finally came by, they had organised that she would sit at 'their' hangout spot, where she was handed flowers and cold water and she gave a small speech. However, despite their overt affiliation with Congress party, these men were also very practical when it came to forging alliances. They understood that the group that would have arranged for a new toilet block in the community would also be recognised as its leaders. On one occasion they asked money from *Umeed* for construction and on another they were approached by one of the old leaders "Salim Mobile", that he would construct the toilet if they withdrew their affiliation with Congress party.

The second youth group consisted of younger unmarried men in their late teens and early twenties. Our collaboration with this group was less formal, also because this group was less formally organised. I became friends with various members of this group, as they spoke English; on various occasions we met in the evening to chat and go to the movies. As a research team, we often had brief meetings with members of this group in the community. Their involvement in the community revolved mainly around their voluntary clean-up action. It seemed that in their own way, they more or less oversaw that the area that they cleaned also stayed clean. On the day the MP visited, this youth group did not push themselves forward at all, something for which they were blamed afterwards, by YUVA and the women's group. What I understood from my frequent interaction with these young men was that their goal was not so much to gain power in the community. Rather, they wanted to do good in college and work in a multinational company so that they could earn money for their family. These men came from the relatively poorer families of the slum community.

The collaboration with the women's group started later on during the research process. It partly arose from other activities of *Umeed* with women; in the two other slum pockets were *Umeed* was active, project staff regularly met with women to discuss various issues such as domestic violence, women's rights etc. It was also

necessary to include the women on the topic of the toilet block as all in the community agreed that the lack of a toilet block posed the greatest problem to women; however women were in no way whatsoever included in the process of obtaining a toilet. The women of the group were especially explicit regarding the design criteria of the toilet. The collaboration between the research team and the women's group was particularly fruitful as we managed to go together to the MP's office, thereby arranging for her to pay a visit to the neighbourhood. Despite the male dominance in the community's public affairs and the local political arena, the women were by no means afraid to claim their space during the MP's visit. By pushing forward and not leaving the MP's side, they managed to bring their points forward.

6.2.3 VOTE-BANK POLITICS

The groups and the power that arises from being a member or spokesperson of such a group gives some form of legitimacy to the relationships that these people then foster with influential external people, such as politicians. This personal contact is essential in obtaining the services to a slum area, in exchange for the voters that such a group can mobilise. This phenomenon is often referred to in the mainstream Indian media when there is talk of slums as "vote-banks". This somewhat crude nomenclature masks the efforts that actually go into making such a transaction between votes and services possible. The events described above in section 6.1 took place more than a year and a half before the election in which the MP is running. For many people living in 'illegal' conditions, this is the only way of obtaining services from the state (Anand, 2011). Not surprisingly voter turnout in slum areas is far higher than turnout in affluent parts of the city (Economist, 2012, Chatterjee, 2004). In the research area, it was found that while the neighbourhood scored lower than two other adjacent slums on every indicator, it had the highest percentage of registered voters (Plan and SRI, 2009); the 2009 *Umeed* and Plan report on Garib Nagar and adjacent areas, stated as follows:

"Data from the survey reveals that <u>76% of the respondents in Garib Nagar have a Voter ID card</u> – the highest proportion across the three locations. In Garib Nagar; frequent assistance has been provided by some noted elected representatives and political leaders. Yet, on almost any indicator conditions in the slum are worse than those in its neighbouring slums. Moreover, there has been no successful move to 'authorize' Garib Nagar, thus still leaving it open to the threat of demolition. In the past, political influence has been of assistance in providing rehabilitation to some occupants of Garib Nagar." (Plan and SRI, 2009; p 108 emphasis in original)

This process of exchanging votes for services is thus by no means the easiest way of improving conditions in the neighbourhood. Services, if provided, are always minimal, and as the new promised toilet block illustrates, no prior consultation is organised on what is actually needed. Providing these 'illegal' services happens in a discrete manner, so that the involved politicians, bureaucrats, engineers and plumbers (in case of water services) are not exposed (Anand, 2011). It is also a question of exerting the right amount of pressure, not just any elected politician can walk into a BMC office and demand a water connection or a toilet block; also this depends on personal relationships between the involved parties (ibid).

The youth groups also know this very well; they therefore refrain from unconditionally supporting the politician. On one day I did see one of the members of the youth group walk around the area with a booklet with all the neighbourhood's registered voters; a list which we as a research team had a great deal of difficulty to obtain. This list was probably provided to the youth group by the political party. However, the staged start of the work on the toilet building just before the party meeting of the constituency, also shows that the political party cannot just buy votes with mere promises. Between these two parties there is a relationship that must be nurtured through repeated actions and performances.

What makes this system even more interesting is that these mechanisms do not exclusively take place in the realm of corruption and favouritism. Both the requests between the community and the politician as well as those from the politician to the executive body have become institutionalised in some way. The politician's accessibility with his/her "office hours" is testimony to the first, while the availability of local area development

(LAD) funds is an example of the latter. This LAD scheme, introduced in 1993, has been widely criticised (Oommen and Pal, 1994). As these funds, which are in fact public funds directly given to politicians, are particularly prone to misuse, abolition of these was recommended by the "Ethics in Governance" commission of the Second Administrative Reforms Commission installed by the Central state. The Central state has however rejected this proposition (The Hindu, 2011). While the availability of such a LAD fund would be useful to bypass all kinds of institutional and bureaucratic barriers in order to quickly spend public money where it is needed and improve the living conditions of a politician's constituency, it is understandable that reservations exist against the existence of these LAD funds. In the notoriously corrupt realm of Indian politics, making a public fund available at the will of a politician may be asking for misappropriation. It also imposes a barrier for any contender to challenge a sitting politician in elections without the availability of large amounts of money. Public works are often marked by large signs of the person that made them possible, this also applies for toilets (Bouchez, 2012).

6.3 CONSEQUENCES OF PUBLIC SERVICES PROVISION THROUGH 'POLITICAL SOCIETY'

What are the problems of providing services in the manner explained above? Is electoral politics a valid system of providing public environmental services to poor urban areas? This model, which is very much in the line of Chatterjee's description of political society, is not an official model of service provision; nevertheless it is a widespread approach. In fact, it could be argued that this system of service provision through politicians could be a more efficient way than through the usual politicised and corrupt ways of the bureaucratic institutions. By enlarging the LAD funds at the expense of municipal and national bureaucracies, one could institutionalise the system and cut costs in a spectacular manner. However, such a system would also have a couple of internal flaws. In the section below I will therefore analyse what the consequences are of obtaining public services through the use of electoral politics.

6.3.1 FUNDING ASPECTS

One remark that repeatedly haunted me during the research process, was the one made by the representative from Plan India responsible for the *Umeed* project. He had said "if they had wanted a toilet, they would have constructed one [by now].[58]" This remark struck me at first because I perceived it to be very inconsiderate, but later it haunted me because there was some uncomfortable truth in it. In our questionnaire survey we found out that many families, especially those that own their dwelling, had invested significant amounts in laying down water and drainage infrastructure. This demonstrates that there is a willingness and ability to invest in environmental services by the community. So why did this not happen in the case of the toilet or garbage bins? I'm afraid I wasn't able to find out the answers, perhaps the investment funds required were too high; or the community's savings had ran out; maybe the community felt that this was the state's responsibility and not theirs. Possibly the cause could lie in the fact while a water connection can be arranged between several households and drainage can be managed at a street level, but a community toilet would require a communitywide investment, something that is difficult to achieve in such a divided area.

From the authorities' side there also seems to be a low interest in investing in sanitation, this applies as much to the official government schemes as to politicians. At the official level in Mumbai, there is no policy whatsoever to provide environmental services to "illegal" slums. Even then, the available funds for the registered slums for provision of sanitation services are limited and often go unused (Chaplin, 2011). As far as politicians are concerned, toilets are a legitimate service that can be provided to a community. However, toilets are of course lower on the political agenda than an imminent eviction or provision of water; it is only after these issues have been taken care of that the need for a toilet is discussed. Moreover, as discussed in the previous chapter, affiliating oneself with toilets can be linked to notions of impurity.

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[58] Comment noted on 6-10-2012

Another problem that emerges with this kind of ad-hoc service provision is the neglect of operation and maintenance (O&M) tasks (Galli, 2011). On the one side there is a fundamental problem at the design level, as a politician provides a toilet block with the objective to win an election, not to provide a facility that lasts. This often leads to constructions of low quality that last as short as two to three years (WSP, 2006). In fact a politician could, theoretically speaking, benefit by having a recurring project to attend to every four years.

On the other side no proper measures are taken from the start to make clear which party is responsible for carrying out maintenance tasks; these can be small costs, but also quite large. In the community construction started from one day to the other; there was no discussion on the design of the construction, the contractor that builds it or the O&M arrangements after the building is delivered. This increases the possibility of 'fault by design', malconstruction and appropriation by a powerful individual. One essential aspect that is often not taken into enough consideration is the provision of an adequate water supply, electricity and a drainage system. Other design criteria that are gender and age specific are also not taken into account in this manner.

6.3.2 CONSEQUENCES FOR CITIZENSHIP

Service provision through 'political society' has other unintended consequences. As a politician is interested in gaining the majority of votes, not in pleasing those of an entire area, his attention (and funds) may very well be directed to only a section of his constituency. In the highly polarised Mumbai society it is not uncommon that minorities are denied services just because their votes are of no interest to the local politician. Anand (2012), describes how a Muslim community is denied services, as they are an 'island' located in a predominantly Hindu constituency; Shiv Sena politicians favour the Hindu majority over the Muslim minority, leaving the latter community dependent on well water instead of piped municipal water. Such mechanisms of religious exclusion are unlikely to happen in Garib Nagar, as the whole surrounding area is considered Muslim. However, this example show how political minorities are very vulnerable in a 'political society' system and the importance of the electoral scale.

Furthermore, providing services on the basis of 'exception' rather than 'right' (Chatterjee, 2004), allows for a perpetuation of the system of inequality. This not only reflects in design features of the provided infrastructure of environmental services, as described above, but also in terms of citizenship. In this process of political society, the state *de facto* abdicates from its responsibility to provide services to (all) its citizens. If Garib Nagar's toilet block were to be severely damaged tomorrow, the municipality has no responsibility to repair it; neither does the politician that arranged for its construction. In this way the burden of maintenance is fully carried by the residents of the settlement.

In fact this system of political society reinforces the power of the already powerful elements of the community. The slumlords are likely to control the maintenance of the provided toilet block. The reverse is also very likely to happen: the youth group leaders that facilitated construction of the new toilet block, who will probably also control the funds for maintenance of it, are likely to become the new slumlords. I wonder if when I return again in some years to Garib Nagar, this prophecy has become true.

It is these insights that leave me with a bittersweet sensation. On the one side I am very proud that partly through the collective efforts of the research team (of which I was a part) a toilet block was constructed in Garib Nagar. I feel I have made a difference in that sense. However, realising the mechanisms and conditions under which this was achieved has left me with a sense of hopelessness. The feeling of not being able to counter the institutionalised systems of discrimination and the powers that enable these systems has yielded me quite some frustration.

6.3.3 OTHER DESIGN ASPECTS

It is argued that when illegally constructing a house in a slum, speed is a crucial factor (Srivastava and Echanove, 2012) If a house is constructed quickly, then it is likely that it is not torn down, but only a 'fine' has to be paid (ibid). Apparently this need to construct quickly also applies for the construction of a new toilet

block. As the incident between Javed and the man that opposed the construction of the toilet block shows, it is imperative to work fast before too many people start asking questions about permits. This manner of informally providing services might be effective, but as argued above it also leads to 'fault by design'. Furthermore, it inhibits any form of technological innovation.

This is partly due to the speed of construction, which leaves no space for any discussion on the type of technology. Lack of knowledge regarding various possibilities is also often missing; staff from *Umeed* are mainly trained as community organisers and lack the knowledge of the existence of the various possibilities (and similarly those that try to spread alternative technologies, have no training in community mobilisation). There is also a discursive element to the lack of available options. It is repeatedly stated that in a slum there is no other option than to construct a common toilet, as there is no proper sewage and the houses are too small for placing a toilet inside. However, both claims are false as drainage is present and it does contain waste water. A very discrete number of households have also installed toilets inside their house, falsifying the second myth; especially household with elderly are reported to do so.

As the situation is now residents have little choice. Even if a new toilet block is constructed, there will be little difference between that building and the pay-per-use toilet. An additional 12 toilet seats will not make that big a difference in a community of 3,000 inhabitants. Even if the price of a communal toilet will be lower than that of a public one, the queue will still be long, thereby leading to the possibility that some people will still prefer to defecate outside. If, like happened in the past, the communal toilet of the area is appropriated by one of the community's powerful individuals; it will also be difficult to guarantee the required proper cleaning of the toilet block.

Investments that would allow for incremental improvements into a neighbourhood, such as laying an underground piped water system and sewage, could possibly change that. Of course this is impossible when providing services in a covert manner and it will never be allowed by the authorities due to the illegal status of the area; but still it would be interesting to consider what could possibly happen if such improvements were allowed. I have visited "slums" in Mumbai where there is no garbage littered around and no evidence of waterlogging and all that remains is the pleasant feeling of wandering through a village within the city. This could also be a possible future scenario for Garib Nagar.

6.4 Conclusion

In this chapter I have discussed what some of the complexities are of providing municipal sanitation services (such as a toilet block) to poor, informal neighbourhoods of Mumbai. This has been done through the use of my personal experiences and observations obtained through the process of studying (in a team) the water and sanitation provision of Garib Nagar, while at the same time trying to improve the sanitary conditions in the neighbourhood; which were characterised by a long queues for toilets, widespread open defecation, severe waterlogging and accumulation of garbage in the area.

In this process of carrying out the 'water and sanitation study in Garib Nagar', it has become clear how sanitation provision in Garib Nagar is clearly linked to politics. On the one side this is the local 'slum politics', in which powerful groups and individuals broker environmental services provision; on the other side this also includes the local electoral politics, where provision of environmental services for informal settlements plays a decisive role in election campaigns. Collusion between these two political systems emerges, as both these systems (and the related groups and individuals) need each other to effectively trade money, power, votes and public services. This system can be labelled as 'political society' (Chatterjee, 2004).

The executive branch (i.e. the BMC) facilitates and also takes part in this nexus. In fact, through the performance of the bureaucracy which is both discursive and material, the condition of illegality is 'shaped'. This state of illegality is in turn the precondition on which the 'political society' mechanism works. The

employees of the bureaucratic apparatus are then personally and illegally rewarded for delivering the same public services, but in an informal, irregular way through the meddling of politicians. In this way the 'political society' system becomes a closed loop.

The system of providing municipal services through 'political society' does not only influence the local power constellations of the neighbourhood, it also recursively shapes a second-degree citizenship of those residing in the slum. Furthermore, provided systems (e.g. toilet blocks) are not likely to last, as these are provided keeping a much shorter timeframe in perspective (i.e. an election period) than one would normally do when building environmental infrastructure.

In the following chapter I will relate this alternative way of 'doing' sanitation and slums, to the other enactments described through this thesis, in order to discuss how all these enactments interrelate and what the effect is of the differences between them.

PART 4: CONCLUSION

Chapter 7: Discussion and conclusions

In the last four chapters I have purposively tried to pull the reader back and forth between UN reports, Indian policy and my field experiences, between slums and communities and between toilet prototypes and a desired new toilet block. These contrasts have been presented in an attempt to answer the following question:

"What are the different enactments of sanitation and slums, how are these performed in Garib Nagar settlement of Mumbai and what are the effects of these enactments?"

This chapter will discuss the answer to this question by first summarising the multiple enactments of "slums" and "sanitations" that have emerged throughout this thesis. A second step will be to understand the (ontological) political processes that emerge when dealing with these multiplicities. The third section of this chapter will consider the concepts and methodology used throughout this study; special attention shall be given to their applicability and potential for furthering the field of water studies. I will also provide a personal reflection on how this research and writing process has changed me and what I consider to be the issues at stake. In the last section of this chapter I will very briefly reflect on what a possible implication of this study could be as I consider a 'new enactment of sanitation'.

7.1 Summarising Multiple enactments

Throughout this thesis I have set out to find different enactments of 'slums' and 'sanitation'. These enactments are never in and of themselves, but situated locally and also discursively. As stated by Mol, *"to be is to be related"* (Mol, 2002; p54); each enactment in 'her' hospital needs artefacts, measuring devices, laboratories, specialist knowledge etc. For slums and sanitation, similar 'hinterlands' or "material-semiotic" networks (Law, 2009) are needed to enact through definitions, statistics, images, international development goals etc. The enactment only exists through these hinterlands. This section will therefore consider the various enactments in relation to the *scale* at which they take place, as well as the larger material-semiotic *network* (i.e. discursive, practices, actors ect.) in which they operate. Mol refers to *locality*, which is not to be confused with 'local'; in fact 'local' objects can be done in a very 'global' manner (e.g. Dharavi). As such, enactments do not only emanate from different scales and networks, but as they are enacted within these the scales and network are also re-shaped. To make things more complicated there is of course interaction between enactments and between their respective scale and networks; this interaction will be discussed in the following section (7.2).

For now, I therefore mainly present the different enactments 'slums' and 'sanitation' discussed in this thesis in order to answer the first part of the research question. This section will therefore mainly entail a summary of the second and third part of this thesis (chapters 3, 4, 5 and 6). Even though a clinical distinction is not always that evident, I have chosen for the sake of clarity, to present the multiplicities under two separate categories of slums and sanitation.

7.1.1 Multiple Slum

Throughout this thesis, I discussed various enactments of slums; below I have identified eight major enactments. This list is not exhaustive, as studies within the networks described or in other localities may give shape to many other enactments. Within the described enactments, I have tried to make a distinction between *knowing* and *doing* slums in order to make clear that both are necessary for the enactment to emerge. Untangling this hybrid is not always possible as the two elements are deeply intertwined, especially when the knowledge is situated, it becomes difficult to distinguish between knowing and doing.

A very dominant enactment, which mainly takes place at global level, is what can be labelled the 'developmental' enactment of slums. In this enactment slums are *defined*, *quantified*, and also a global agenda is set to *eradicate* slums, as they symbolise lack of development. This enactment mainly travels through a vast series of UN-HABITAT reports in which slums are portrayed as areas of poverty, misery and squalor. As the

enactment is set in a context of international development (aid) organisations, its goal is to improve the lives of those living in the slums; the slum itself is thereby created as a negative object. This object is defined in terms of what it lacks (e.g. durability of materials, living area, tenure security and access to environmental services) compared to a wealthier (e.g. middle-class) section of a city. Another important element that constitutes this enactment is the emphasis on how wide-spread the phenomenon of slums is throughout the world. In fact, a very important task of UN-HABITAT is to compile and spreads global data on how many people live in slums. As this 'developmental' enactment hinges on these notions of slums as objects of squalor and misery and on the fact that the number of people living in slums are only growing, it allows for even more alarmist discourses to pop up. Publications such as "Planet of Slums" (Davis, 2006) are exemplary of this kind of alarmism and warn for a world full of slums. This 'developmental' enactment is not only discursive or epistemic; this data is enacted in order to make the case of reducing the number of people living in slums. This objective, formalised through international development efforts such as the Millennium Development Goals, is how *knowledge on* and *about* slums comes into *being*. Another example of this way of *doing* slums, are worldwide campaigns such as "cities without slums" of the Cities Alliance, in which UN-HABITAT also takes part. As governments are (internationally) put under pressure to reduce the number of people living in slums, the slum as an object is villainised. Some argue that, by conflating the problems *in* slums with the problems *of* slums, these initiatives lead to mass-scale demolitions and blind redevelopment (Echanove, 2008, Gilbert, 2007); these authors therefore both criticise the use of the term "slum", as its negative connotations lead to the outcomes mentioned above (ibid).

A second enactment is one I label the 'self-help' enactment. This enactment emerges from of a network of the Mumbai-based NGO SPARC and its international offspring SDI (Shack/Slum Dwellers International) and their collaborations and publications with a research institute, IIED and the links these have with international funding institutions and aid organisations. In this enactment slums are not only considered places of poverty, but also of struggle; much emphasis is placed on suffering as result of displacement and evictions. 'The network' is very successful in making the local global, for example by publishing extensively on development programmes in Dharavi in Mumbai. Development for slums, in terms of services provision, is considered to rely to a great extent on the knowledge and organisation of the people that live in slum areas. The SPARC/SDI network has not only been successful in spreading knowledge about slums through academic journals and international conferences, but also in taking a prominent role in partnership projects with the World Bank and UN-HABITAT. From these partnerships, like the Mumbai Slum Sanitation Programme in which vast numbers of communally managed toiled blocks have been built, it becomes clear that the ideological basis of this enactment is one where the state retreats and local community organisations become responsible for environmental service provision. A 'collateral reality' (Law, 2011) that is created in this process is the notion of portraying a slum community as a harmonic place, void of power struggles and local politics. Through these partnerships 'the network' has also managed to grow and influence policy debates, however critics (including myself) question the roles that this NGO has taken up (e.g. constructor of toilet blocks), its accountability as well as its claim to represent the interest of all the slumdwellers.

At the Indian level two distinct enactments of slums emerge, one of poverty and one of illegality. These two enactments, which I find to be closely related, are carefully kept apart. The first enactment is based on urban poverty figures as they emerged from national statistics such as the national census which is carried out every ten years. This national population survey also uses an own definition of slum; this in turn becomes the national definition, which then influences all kinds of processes, for example bureaucratic affairs. What constitutes a slum according to this definition,[59] are 'temporary' building materials and issues of crowdedness, lack of hygiene and environmental services (i.e. water and sanitation). This knowledge becomes practice as national policies for improvement of slums and the position of slumdwellers are put in place. These national

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[59] "*A compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities*" (Census, 2013)

policies however often fail to realise what they set out to do; one of the reasons for this is because they clash with the second Indian enactment of slums, that of 'illegality' (see below). However, despite the 'failure' of the policies and projects of the national government, through this enactment the state is still able to perform its role of protector of the poor. This performance is not only important internally (to its subjects), but also externally (e.g. the 'international community', UN).

The 'illegality' enactment sees slums as the result of uncontrolled urbanisation. In this view slums, also labelled encroachments, are seen as the product of illegal occupation of land; those that live in slums are also considered to be criminals and dirty people. The slum is in this enactment also considered a dirty place, due to the presence of garbage heaps and wastewater flows. According to this discourse, the people living in these places do not have right to obtain benefits and services from the state, not only because they occupy land, but also because they don't pay taxes (i.e. informal workers). These views are not only discursive, but also formalised to some extent as they are set into law. For example, it is explicitly stated in Maharashtran law that water should not be provided to those slums that are considered illegal (Government of Maharashtra - Department of Urban Development, 1996). This notion of illegality is therefore very strong amongst those in the local bureaucracies such as the BMC in Mumbai. It is also further cultivated by discursive elements of regarding those that live in the slum as illegal, for example illegal Bangladeshi immigrants; sometimes associations with Islamic terrorism are even made. Another association that is made is of slums as sites of environmental degrade, for example when there is talk of encroachment on riverbanks or in a national park. Demolitions and evictions of slum areas, even achieved through court cases filed by higher social classes (e.g. PILs), are an outcome of this mind-set. In fact, one could almost say that (the perennial threat of) demolition is a very central part in how a slum is 'done' in this enactment.

A further enactment, which is also very present in Mumbai, is that of slums as 'housing development sites'. As rapid economic growth has led to a hike in land prices, some slums are located on high-value land. In this enactment the slum is considered an area which can be bulldozed and used as construction site for new buildings. This enactment purposely obscures the social arrangements and livelihoods of those that live in slums, as they are not convenient for the purpose of relocation. In this view the slum (both physical as social) is therefore just a temporary element, an obstacle to overcome in order to obtain a *tabula rasa* located on prime-value land. Displacement of the people of a slum can be achieved through evictions, compensation mechanisms or the more recent market-based redevelopment mechanisms. In the latter the residents are given a 'free' apartment elsewhere in the city if they chose (or are 'convinced') to leave the slum area in which they reside. Often these people lose out on the deal, as they are being relocated far away from their source of livelihood into flats that rapidly deteriorate due to lack of maintenance. A collateral reality of this enactment is the notion that housing is a form of private investment which can be used for accumulation of personal wealth.

In response to the previous two enactments, another enactment emerges from activists, intellectuals and research institutes of Mumbai. This enactment portrays slums as 'victims' of Mumbai's unjust policies and corrupt politicians and greedy landowners. A counter-discourse is developed in which the importance of slums to the growth of the city is highlighted, as slum dwellers have provided the cheap labour needed for economic growth as well as made various low-lying areas suitable for construction. In this counter-discourse importance is also given to different types of slums as well as differences in the people that live in the slums: their religion, caste, profession etc. Importance is also given to the political systems and structural injustices and hypocrisies that maintain the segregation in Mumbai's society. Slums are explained to forth from social and physical marginalisation. This enactment, to which I would include this thesis, is put in practice through critique, protests and also the work of NGOs. Another interesting aspect is that the word slum is often replaced by the term settlement by those that shape this enactment; this is to avoid the negative connotations (and threats of eviction) associated with the term slum.

Even at the lowest focal point of analysis of this thesis, the neighbourhood level, it is possible to distinguish different enactments; Garib Nagar is done in two distinct ways by multiple actors. A distinction can be made

between Garib Nagar as a 'slum' and Garib Nagar as a poor neighbourhood, literally a *garib nagar* (meaning poor settlement). Garib Nagar is a topic of interest to local and international media as two of its very young residents played a prominent role in an international blockbuster movie; this makes it a target for charity funds and international development aid. These funds enable the enactment of Garib Nagar as a slum, as aspects of urban poverty, marginalisation and disaster are emphasised. The urban poverty is further illustrated through reports full of tables and charts focussing on the topics which the respective author-organisation works on. The enactment comes forth from charity organisations and NGOs (such as the *Umeed* project) which work and write about the area, but also residents and residents' associations which actively portray themselves as poor to outsiders whose visit/research is facilitated through the NGOs.

The second enactment of Garib Nagar, in which also this thesis partakes (although ironically it was the first enactment which facilitated my presence in the area), is one played out in the 'daily activities' of Garib Nagar. The neighbourhood is made through hard work in the garment industry, Muslim faith and for some also studies in order to overcome the difficult circumstances of the area. Garib Nagar is for some a place of 'temporary' hard work in order to save money and return to the village; but also a place where some of the younger generation aspire for something better. But Garib Nagar is also a place of home for many, with opportunities and of friendships, despite being far from perfect. Marginalisation of the area and its residents comes forth from the fact that those that live in Garib Nagar are mostly Muslim immigrants from Uttar Pradesh and Bihar, which are actively discriminated against by the political parties in power in Mumbai. In fact, as the area is considered illegal by the bureaucracy, despite its old age, municipal services are absent. However, through informal networks these services are obtained in an informal manner. Two local leaders play a pivotal role in networks (in fact this connectedness is a crucial aspect in shaping their power), which include connections with the local bureaucracy and politicians. However, these two local leaders do not operate as individuals; they are leaders of residents' associations or otherwise linked to other (e.g. women- and youth-) groups. In this way the residents are able to mobilise the electoral potential of Garib Nagar in order to broker for public services. This in fact is the 'political society' enactment, which is also described in the work of Partha Chatterjee (2004; 2011).

Lastly, I would like to mention the 'home-grown neighbourhoods'. As far as I can see, this enactment has not materialised yet, it is still only at the discursive level. It comes forth from two individuals who are shaping a network throughout various organisations (URBZ and the Institute of Urbanology) and related blogs/websites[60]. In their views, which are shared through architectural magazines and design biennales, the word 'slum' should be avoided at all costs, as it fails to do justice to the distinct neighbourhood character of each area. This view considers the historical character of the neighbourhoods, as well as its dynamics. Comparisons are made with inner city neighbourhoods in Europe and Japan, to make clear that areas which are now seen as historical neighbourhoods in many city centres were once also considered places of squalor and decay. The so-called 'slums' emerge as a result of local (informal) regulations, local contractors, urban-rural networks etc. One could say that this enactment has in fact materialised, as what the people from URBZ describe can be seen out of their office window in Dharavi. However, the concepts explained above have so far not led to any policy or project leaving this enactment at the level of which a slum is *known*.

7.1.2 MULTIPLE SANITATION

Similar to the realm of slums, "sanitation" is enacted differently at various scales and through different networks. Some of these enactments run parallel to those described in the previous sub-section, others are quite distinct.

An 'developmental' enactment of sanitation, similar to the one of slums, exists at a global level. The same tasks of *defining*, *quantifying* and making *plans for promotion* of sanitation are carried out again within the UN; WHO and UNICEF (together Joint Monitoring Programme; JMP) are the most prominent agencies involved herein. Again, the roots of this enactment lies in a context of international development (aid) organisations, the goal

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[60] Urbz.net; airoots.org; urbanology.org

for these organisations is to make sure all people of the world have access to sanitation. In this enactment, sanitation mainly revolves around faeces disposal systems and its necessity is emphasised as essential for health improvements, especially for the young and poor children of the World. The 'developmental' enactment not only defines what sanitation *is*, it also states which faecal disposal systems (i.e. latrines and toilets) allow for 'proper' sanitation; these are defines in terms of "improved" vs "unimproved" (JMP, 2012). A MDG target is also set for sanitation, which is monitored by the JMP; one of its main tasks is to monitor progress by collecting and compiling global data on the state of sanitation, expressed according to this improved/unimproved dichotomy. Special attention is given to 'open defecation', which is seen as the most 'unsanitary' practice. As a 'collateral reality' (Law, 2011), India emerges quite tainted from these agencies' documents, as it is the country with the highest number of "open defecators". Sanitation is also explicitly linked to drinking water, for example in the MDG target 7C[61]. Of the two siblings, sanitation is the more difficult one (and more ugly) as, unlike sanitation, provision of drinking water seems to be achieved according to the JMP's performance indicators.

Closely related to the 'developmental', is the 'human right' enactment. Although based on the same knowledge, networks and scales, this enactment is slightly shifted in the way it is brought into being. By linking sanitation to a human rights framework, a new component of rights and obligations becomes part of enacting sanitation. This takes shape through definitions, "progressive implementation requirements" and possible future court cases. This enactment is global, facilitated through the networks of UN bodies and international NGOs. However, interestingly enough the same 'human right' discourse is also used for a 'local' 'human right' enactment, as I noticed through the PIL filed by YUVA (although concerning water) in the Mumbai High Court. Also in this process, collateral realities (Law, 2011) are shaped, such as 'good' and 'bad' countries which do or don't comply with the requirements.

International NGOs such as WaterAid and Plan also latch on to the figures and data of the JMP to push for improved access to water and sanitation. The 'international NGO' enactment comes into being through these INGOs (international non-governmental organisations), as sanitation is regarded to be vital to healthy lives (especially of children), good for the economy and necessary to improve the position of women. Of course, by stressing these effects a collateral reality is of a backward world which is unhealthy, bad for the economy, and where women have a poor position. This enactment also goes beyond the discursive as the INGOs urge national governments to spend more on sanitation and engage in programmes to construct toilets and educate people on hygiene (further indicating backwardness). This enactment is present from the local to the global level, as the INGOs are present at global conferences, but also fund local projects; as such it is very influential. Two 'sub-enactments' enacted through the same INGOs relate to 'gender and sanitation' and 'sanitation and the public-private service provision debate'. Gender in sanitation is constituted mainly through stories of sexual violence while going for open defecation; menstrual hygiene education; and missed education for girls, once their menstruation starts, due to the unavailability of toilets in schools. These notions shape the same collateral realities described above, and somehow this discourse insinuates that 'sanitation' or toilets will change these situations; in this process also gender becomes enacted, albeit in a power-void manner. The same can be said about the public-private debate of urban water management, from which these INGOs refrain of taking any political or ideological position, in order to remain active on a global scale. By doing so, the INGOs enact sanitation (and water provision) as a de-politicised entity. However, from their own projects it appears that there is a neo-liberal preference of service provision and management, as there is great emphasis on personal and community responsibility to construct, operate and manage sanitary facilities, due to limited funding for projects.

A distinct 'EcoSan' enactment emerges as various research institutes, philanthropists, and NGOs form a network to promote a 'new' type of sanitation, oriented on resource recovery. This network highlights the potential benefits for people and the environment if they use toilets that enable the retrieval of nitrogen from

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[61] MDG target 7.C "[to h]alve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation"

urine and phosphor from faeces. This is often combined with business models to sell the dried excrements as fertiliser. Justification is partly based on the notion of need for fertiliser in agriculture and a looming "phosphor crisis" due to depleting reserves in phosphor mines. Knowledge dissemination happens through alliances and academic journals; "new toilets" are invented through international contests; and development organisations such GTZ apply these principle in their projects. Sanitation is thereby enacted as a potential source of wealth and income.

At the Indian national level, policy is made to improve sanitation conditions through the construction of latrines, mainly in rural areas; an example of this is the Total Sanitation Campaign (TSC) which has played an important role in the last decade. In this enactment, Indian policymakers seem to react to international pressure to act on the level of toilet coverage in the country. This is also done through large-scale campaigns and events such as the Nirmal Bharat Yatra. Sanitation (in the form of latrines) is enacted as a form of progress for the countryside, also through slogans like "no toilet, no bride". This enactment is still not prominent due to two factors. First funds for large-scale campaigns have been misappropriated throughout the country; and second toilets are (still) considered impure, leading to a low political interest in the topic.

In fact, the impurity/taboo aspect is a very important enactment of sanitation throughout the world. In Indian society this takes place in its own distinct ways. A crucial aspect herein is the issue of caste; those cleaning or handling human waste, called scavengers, are eternally polluted and therefore untouchable in Hindu society. Despite that untouchability is unconstitutional and even though the dry latrines that are cleaned mainly by women of the lowest caste are illegal, the practices continue to exist to date. The media often refer to the example of Railways that continues to hire manual scavengers to clean the tracks and stations from excrements that come from trains. In this enactment, it becomes clear how sanitation is linked to social hierarchies and inequities. Very interesting is the fact that not only excrements are considered impure, but also those that deal with them; while a European would consider a toilet that needs this type of manual cleaning, as a dirty object. There are those that counter this 'impurity' enactment, like Sulabh; a large NGO which is active on the liberation of scavengers and has set up pay-per-use toilets throughout India for this purpose. In their counter-efforts the link is made between new types of toilets and a modern Indian society, in which the gross inequities resulting from caste issues will be absent.

In colonial Bombay, an outbreak of the bubonic plague in 1896 led to hundreds of thousands of inhabitants fleeing; it also resulted in demolition campaigns of *chawls* and slums in order to "clean up the city". In these type of events two enactments, those of slums as dirty places and lack of sanitation as unhealthy, come together and reinforce each other. In 21st century idea of Mumbai as a 'world class city', something similar happens; but then the slum and lack of sanitation are enacted as pre-modern entities which do not fit within this 'world class city'. In Mumbai, lack of sanitation can for example be seen in the form of men defecating along train tracks. In popular discourses this is linked to lack of education or backwardness, thereby emphasising again the pre-modern character of those that live in slums and defecate outside; however this discourse is also linked to ideas of rural-urban migration.

Lack of sanitation in Mumbai is often expressed in numbers of those that defecate in the open and by stating how many people have to share a toilet seat (in a certain area). In this enactment, lack of sanitation is conflated with a lack of toilets. Projects to improve the sanitation situation, like the World Bank funded Mumbai Slum Sanitation Programme, have therefore resulted in the construction of communal and pay-per-use toilet blocks. Interestingly enough there is little attention to the aspect of drains and wastewater treatment in this view of sanitation; open drains can be found throughout the city, even though less in the richer areas. Many of the toilet blocks are not linked to any form of drainage at all and work with a sceptic tank that needs to cleaned out in due time. Another result of this enactment is that these pay-per-use toilets have taken provision of sanitation services out of the hands of the state and made it into a service offered through (semi-)private parties. The "right to pee campaign" has exposed that there are large financial interests behind the management of these pay-per-use toilet blocks and their connections to municipal authorities.

This "right to pee campaign" has also exposed the gendered differences of urinating. The pay-per-use toilet blocks allow men to urinate for free, while women have to pay. Many of these toilet blocks don't even have a female section. In fact, peeing is not considered part of (paid) sanitation in this enactment, but as a free service provided to society, but only to men. Through the campaign, it is highlighted how urinating is very much a part of sanitation provision, and how this form of provision should be equal both for men and women. The campaign is now pushing for construction of female urinals throughout Mumbai. This localised struggle has been therefore been able to enact sanitation as part of a gender struggle as well as to expand the notion of sanitation in order to include urinating.

Sanitation in Garib Nagar is enacted as a state of cleaniliness (*svachchhata*); this in constituted through toilets, drainage and solid waste removal. All the three aspects are currently lacking in the area; these are considered to be interrelated and lack of these is experienced by residents as the neighbourhood's biggest problems. Open defecation is practiced by the men of Garib Nagar, it is not considered as dirty activity; it is not considered to be good either, but as the logical outcome of long queues, little time for defecating and high costs for a family on a monthly basis. Aspects of dignity (for example as people can see the men from the skywalk above) and safety (thieves at night) appear to be more of relevance for open defecation; for that same reason it is not allowed for women to defecate in the open. Urination is also related to privacy and dignity, as it is done when all leave the house, but is also not considered impure and therefore also not a part of sanitation. In this enactment notions of comfort, privacy and dignity play a large role.

Sanitation provision in Garib Nagar resonates heavily with the 'illegality' enactment of slums. The city's bureaucracy considers slumdwellers to be illegal, dirty and not willing to behave properly and thereby justify their inactions to provide services to these. Another discursive-material element justifying the BMC's inactions is the perennial threat of demolition of Garib Nagar; in this reasoning it is considered a waste of public money to provide services to an area which will be destroyed in short term. In fact non-provision of public services also keeps the 'illegality' enactment of slums in place; if the BMC were to lay down permanent infrastructure, it could be interpreted as an approval of the slum. Sanitation is in this enactment therefore closely connected to aspects of legality. Even services that do not require 'permanent infrastructure' such as garbage collection, are not implemented in a regularized fashion, this leads to further disillusion of the residents towards the municipality. As a result, this enactment also shapes a 'second (or third) class citizen', that is not worthy of the services of the state (*cf* 'abject residents' in Anand, 2012).

A consequence of the 'illegality' enactment is that residents are pushed into the arms of politicians to secure some form of public services. This enactment, which runs parallel to the 'political society' (Chatterjee, 2004) enactment, results through the nexus formed between powerful groups and individuals of a community (e.g. Garib Nagar), local politicians and bureaucrats. Negotiations between these parties gives shape to a system in which votes and money are exchanged for public services; herein, sanitation is enacted is as the provision of a communal toilet block. When such a communal toilet block is officially opened, a 'performance' is put in place in which the politician's generosity as well as the power of the local leaders is demonstratively shown. This enactment allows no room for negotiations on design, no possibilities to discuss other options of sanitation provision (e.g private/shared toilets) and no inclusion of the various (minority) groups within the community; thereby, reinforcing the power of the community's male elite.

7.2 DEALING WITH MULTIPLICITIES

Throughout this thesis, and in the section above, I have shown that there are various enactments of 'sanitation' and the 'slum'; "more than one, but less than many" as Mol (2002) would say. In her study on atherosclerosis in a small Dutch hospital, Mol (ibid) shows how multiple enactments of the disease bring forth a *body multiple*: there are different atheroscleroses, but somehow they are connected; even if the disease is multiple, it also hangs together. As Mol limited her analysis to one disease in one (small) hospital, she is able to witness and

lucidly describe how 'dealing with' different enactments takes place within the walls of the building. Mol identifies three processes of 'coordination', 'distribution' and 'inclusion' (ibid).

It is through these different processes of 'dealing with' different enactments that we enter the domain of ontological (and epistemic) politics. The process of '*coordination*' brings the various ways in which 'an object is done' together, to create a coherent reality. This is done through the practice of 'addition'[62]. The second consists of bringing various representations together by creating a common measure, different representations are then 'translated' to fit this common measure; this semi-intentionally allows for subtleties to be 'lost in translation'. The process of '*distribution*' relates to separating "what might otherwise clash" (Mol, 2002; p115). By separating different enactments over specific sites (e.g. places, times, semantics etc.) internal differences between the enactments are neglected; these different enactment can continue to co-exist, as they each occupy a different site. The third process of '*inclusion*' is one of relating a specific enactment to 'the bigger picture'; this process is also interesting to consider as it provides the internal and external justifications (i.e. to those directly and indirectly related) of certain choices that are made. To Mol's analysis I also add a fourth process, namely one of intentional neglect or '*exclusion*': in this process certain aspects are neglected completely as being part of the enactment. This allows a network, organisation or individual to 'do' an object without having to relate to (politically) difficult aspects.

The various enactments of slums and sanitation, as described in the section above (7.1), are not in such close contact as the different enactments of atherosclerosis in 'Mol's' hospital. This does not mean that they don't interact with each other. Sometimes these enactments occupy the same (material-semiotic) space, for example in Garib Nagar or an UN publication; sometimes they are distant from each other, both in spatial as semiotic sense. However, as they resemble each other enough, they relate to each other: the global enactment needs the local enactment and vice-versa. As these enactments relate to each other, the same processes of epistemic and ontological politics appear. In this section I will relate to these different (epistemic-ontological) political processes between the different enactments of slum and sanitation. By doing so, I will show the process of how some enactments become dominant over others, as well as some of the (unintended) results of this epistemic-ontological dominance. I will do this by describing how the three processes of addition, distribution and inclusion take place; I will show this by relating to some themes that have emerged throughout this thesis. These are: development, modernity, authority and citizenship

7.2.1 DEVELOPMENT
The theme of development is an essential one throughout this thesis. This is enacted mainly through notions of poverty and health. Both the presence of slums as the lack of sanitation are enacted together to shape this ontology of poverty and poor health. Images and statistics of slums and of poor sanitary conditions are easily associated with poverty and unhealthy conditions. This is done at the UN level, but also in the works of the Indian state and of NGOs, both local and global ones. As such, working in slums and on sanitation becomes part of 'doing development'.

Interestingly enough, this way of doing development and reducing poverty does not allow for much consideration on power, culture and (institutionalised) discrimination. This is achieved through two different processes: translation and distribution. The first process relies heavily on various statics and figures that can be found in tables and charts. By enacting slums and sanitation merely through numbers, figures can be transported all over the world and added up. This is how *Umeed* can report to Plan International and how figures travel from the BMC to Maharashtra state, India and then the UN. Of course this process entails stripping a complex subject like slums or sanitation into quantifiable indicators, allowing for various aspects (to be 'lost in translation'. For example, I can imagine that *Umeed* will report the construction of a toilet block in

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[62] Mol also refers to 'calibration' of different test outcomes, this concept is not quite usable here (Mol, 2002; p84-85.

Garib Nagar to Plan, in numbers of how many people now have a toilet facility; the political process of building such a toilet block will most probably be omitted in the report to Plan and its donors.

However, the reverse also happens. Global definitions on what a slum and sanitation is, are translated into quantifiable targets that must be reached within a certain timeframe. For example, while UN-HABITAT considers tenure security as an important aspect in its definition of a slum, it also acknowledges that this number is difficult to quantify and is therefore not reflected in the MDG target on slums. Similarly in the topic of sanitation, this has led on a focus of policy on numbers of toilets constructed, thereby obscuring issues of maintenance and of treatment of wastewater. Distribution is achieved by adhering to a topical focus. In sanitation the focus of JMP is predominantly on faeces and on 'improved' sanitary facilities; however in Garib Nagar, we have seen that sanitation is done by including toilets, garbage and drainage. JMP will not deny that these topics are of importance, but they may well be distributed to a different organisation or institution. Similar processes will occur when considering issues of caste sensitivities in sanitation; this is not a topic that is denied but it is distributed elsewhere.

Development is also done to a large extent by relating on aspects of health. Health features prominently in the 'developmental' enactments of slums and sanitation, mainly through notions of hygiene. The slum is herein objectified as a place that lacks hygiene and similarly certain sanitation practices (e.g. open defecation) are emphasised to be unhygienic. Arguments from other domains are added to support this health-centred enactment, for example by stating that sanitation will help the economy to grow as a result of improved health situation. Such a focus on health results in two significant effects. On the one side other issues revolving around sanitation (e.g. dignity, privacy) are considered to be of less importance; and on the other side, those that inhabit slums and those that practice open defecation considered to be unhygienic and dirty.

7.2.2 MODERNITY

Closely linked to the theme of development, is the one of modernity. By evoking notions of progress, both in the personal material and in the nationalist sense, 'improving' slums or 'achieving' sanitation becomes a noble cause. This is seen in the market-based redevelopment mechanisms for slums in Mumbai; when 'dirty' slums are considered impediments to attain a "world-class city status"; and also in the 'INGO' and 'EcoSan' enactments of sanitation notion of progress are very present. Hereby, a future horizon is produced teleologically of what is 'good', against which the present can be measured.

However, by relating to notions of progress and modernity, the current state of slums and lack of sanitation are of considered to be (in) a pre-modern state. Not only is the slum or the 'unimproved' toilet facility pre-modern, but also the person that lives in a slum or that defecates in the open is a pre-modern modern being. This discourse is used by the urban middle-classes of Mumbai when describing the slumdwellers as 'uneducated villagers' and also by the city's bureaucrats when stating that the people living in slums have primitive habits that lead to blocking of drains. This also links modernity to education. Sanitary practices based on science are considered superior to those based on traditions. The element of 'hygiene education' is a very prominent one in enactments of sanitation as done by UN agencies and INGOs. However, from the interviews and focus group discussions conducted in Garib Nagar it does not emerge that the people are "uneducated villagers" that have kept "their village ways". The men that defecate outside are not particularly proud of their actions and they know they're exposed to the public eye as many can spot them from the skywalk over their heads. They just resort to this action because of the long queues and limited "private time" they would have at their disposal inside the public toilets.

Another link to the theme of modernity is that of taking care of the environment. Modern sanitation systems (e.g. EcoSan toilets) take care of the environment, pre-modern ones pollute the waterways; the informal economy of slums is also polluting, while a 'normal' residential area isn't. Of course this reasoning is only possible through the process of 'distribution, as described above. The 'informal economy' of the slums of Mumbai is closely linked to the formal (global) one; products from Dharavi are sold all over the world (Sharma,

2000). Besides, the 'formal' industrial activities of Mumbai are just as polluting as those that take place in a slum (if not more), but these are distributed to other areas of the city. Similarly, defecating in a field may pollute the direct environment, but untreated wastewater flows from high-class residential areas are just as polluting. This pollution is then distributed to another location and falls under the responsibility of a different agency.

By relating to modernity, a process of 'exclusion' also takes place. Caste issues and cultural sensitivities regarding handling of faeces can be ignored if they are considered as pre-modern. The aspect of strict societal hierarchies and dominance structures can be neglected, if it is argued that technological progress will remove the need of human handling of faeces. However, as the replacement of Jairam Ramesh as Minister of Drinking Water and Sanitation (after he had stated that there are more temples than toilets in India) shows, cultural sensitivities regarding sanitation should not be neglected. Bringing about change in India is a bit more difficult than the "can-do mentality" of JMP reports would suggest.

7.2.3 AUTHORITY

The various enactments also show how 'doing' sanitation and 'doing' slums is very closely related to power. As Mol states, enactments are a "politics of *whom* and a politics of *what*" (Mol, 2002; p184); enactments come about by *somebody* doing *something*. As networks, organisations and individuals deploy specific ontological perspectives and performance, they reproduce the need and importance of that specific network/organisation/individual; in this process the enactment is instrumental in increasing the authority and thus also power of that specific network, organisation or individual.

This system of increasing authority through a specific enactment can be found in almost all the enactments of sanitation and slums described in this thesis. The UN agencies that define, quantify and plan to eradicate slums/lack of sanitation become necessary as no other organisation oversees the global slum population (or number of open defecators throughout the world). The INGOs, EcoSan networks and the SPARC/SDI network enact the problems of slums and sanitation all in their own specific ways, but they also present themselves as the 'experts' that can broker between the global and the local in implementing solutions for the specific problems they highlight. The Indian state also enacts slums and sanitation based on knowledge generated by its own departments (e.g. using census data); as the states implements policies it fulfils its role as protector of the poor, even if these policies fail to achieve what they set out to do. Through the municipal bureaucracies, the state also enacts slums as a state of illegality. Also in this enactment, by declaring settlements illegal and not providing public services to these, the bureaucracy is able to reinforce its authority and power, both as vigil of legality and as service provider. In Garib Nagar, NGOs are able to reinforce their role as benefactors as they enact the slum by generating statistics and carry out projects, which of course concern the issues described in these statistics.

Of course all these mechanisms of reinforcing authority through recursive enactments depend to a large extent on emphasising certain aspects over others. This is done through processes of 'distribution' where, for example a specific 'sanitation' is part of an organisation's mandate while a different sanitation is part of another's mandate. One can then 'do sanitation' by constructing a toilet block and leave wastewater treatment to a different organisation. A second process of 'exclusion' also allows for authority to be reinforced through enactments. All enactments only contain elements that can be directly influenced by the enabling network/organisation/individual; to include elements that lie outside this direct influence would be to acknowledge incapacity of acting on the described problem. For example, when SPACR/SDI enacts a slum as a community that is void of local power inequities and struggles, they do so to maintain their role as broker between international finance institutions and these communities. Recognising that there are local power plays that are not directly controllable by this network would be to admit that they have no authority over such an area. This process can be found in all enactments and mainly concerns issues of discrimination or dominance: the UN and (GI)NGOs enact sanitation and slums are apolitical objects because these organisations cannot

interfere in local politics too much; the Indian state enacts slum and sanitation also in an apolitical manner because they do not want to change the status quo. Interestingly enough there are some, including myself, that enact slums and sanitation by *inclusion* of power and dominance structures; the authority of these organisations or individuals lies exclusively in describing and denouncing these power structures.

7.2.4 CITIZENSHIP

A fourth recurring theme of this thesis has been that of citizenship. This theme recurs in various forms, especially from those enactments that are politically sensitive. Living in a slum and not having access to sanitation services emerges as a manifestation of differentiated citizenship. A second example can be found in the differentiated treatment of Muslim citizens (Anand, 2012, Contractor, 2012).

A first aspect of citizenship results from the discourse on rights, for example in the 'right to water and sanitation'. In this case to have a right to something would mean that there is an individual (or organisation) that wants (or has) access to a resource (or service) at stake and a governing organisation that regulates access to this resource (or service). Decision-making rights or allocation rights do not seem part of this discourse; it purely regards 'access'. As in many cases the governing agency is a state-led institution, this 'right to' would mean that a relation of citizenship is established between the individual and the state on basis of this resource/service (as opposed to a form of citizenship based solely on suffrage). In fact to even consider that there is a need for a 'right to water and sanitation' means that there are people that do not have access to this resource/service. Those that do not have access to resource/service then would have a right which is unfulfilled, in this process they become second-class citizens. Of course the state would not like to officially recognise this differentiation of its citizens, as this would formalise that the state is unable or unwilling to take care of all its subjects. This then becomes a direct clash between two enactments, that of 'illegality' and one based on 'rights'; the case filed by Pani Haq Samiti in the Mumbai High Court regarding the 'right to water', must be seen as a manifestation of this direct clash.

Through the enactment of illegality the various bureaucracies have in fact created a differentiated citizenship which is both discursive and material. To escape form the paradox that those that live in slums are in fact citizens that are allowed to vote, in some cases even their nationality is discursively doubted. In other cases, when a distinction is made between 'good' and 'bad' citizens; for example, by stating that the former pay taxes while the latter don't (even though they still pay value added tax on all their goods). In fact, the aspect of illegality has been instrumental in governing Mumbai ever since the city has come up under colonial capitalism. The paradox is of course that the city is as much dependent on this 'illegal' cheap labour force, as these people are dependent on the city for public services. A second paradox is that "illegality" or "the informal" is also what keeps slums afloat. Slums are not exclusively residential areas, but also a concentration of economic activities. It is these activities that keep attracting new immigrants to slums. However, none of this so-called "informal economy" would probably be possible without the systematic disregard for environmental and labour legislation (*cf.* Sharma, 2000). This means that on one side progress is hampered by this perennial state of illegality; while on the other hand, illegality is what keeps these areas afloat. The enactment of illegality is only questioned by smaller critical groups, but not by (GI)NGOs and international institutions like the UN. More importantly also the enactments deployed by these organisations do not challenge in any way the 'illegality enactment'; this puts no pressure on the bureaucracy to reform its approach.

Through the enactment of illegality, the bureaucracy and the state manage to shape a second system of citizenship, namely that of the political society (Chatterjee, 2004). Political society is not only a parallel political system in which citizenship is solely defined on the right to vote, but it is also spatially and materially enacted. The spatial enactment can of course be seen as the presence of the slum as a separate distinct entity. The material enactment takes various forms. In Garib Nagar this can be seen in the water connections that run above ground (the "spaghetti-networks in Bakker, 2010), elsewhere in Mumbai this is enacted through water provision with tankers (*cf.* Swyngedouw, 2004). In sanitation the communal toilet block, is also an enactment of

political society. Installing individual household latrines may prove to be a challenge as residences are small, but it is by no means impossible as the presence of private latrines in Garib Nagar has shown. Officially allowing private latrines would not only mean that the illegal settlement is tolerated, it would also result in the obligation of the state to treat its wastewaters. Therefore through political society sanitation is provided through communal toilets. As an effect a difference is created between citizens: those with individual toilets and those without; the communal toilet block has then become a material enactment of political society.

7.3 REFLECTION ON RESEARCH OBJECTIVES

One of the tasks I set out to do when first drafting a research proposal for this thesis, was to actively reflect on my choices and their implications. As the reader only sees the final version of the document, it is good to make explicit that this is of course the result of a process. In this section I will briefly look back on this process and analyse whether my choices and actions helped me to achieve my objectives. I present the reader this introspection because I truly believe that learning can only occur if one is willing to accept the flaws that will creep up in any (research) project bound by time, money or other resources.

In the introductory chapter of this thesis, I have specified the objectives I set out to achieve within this document. These were: 1) to develop a socio-technical approach on sanitation; 2) to engage with two concepts, namely 'multiple ontologies' (Mol, 2002) and "political society" (Chatterjee, 2004), from a water management perspective; and 3) to combine research with (social) activism. In this section, I will therefore focus on these three objectives and what I have learnt from managing these.

I will start this section by discussing the approaches that distinguish this thesis from other approaches to describe 'sanitation' and 'slums'. These are the 'multiple enactments' (Mol, 2002) and 'political society' (Chatterjee, 2004). Thereafter, I will reflect on the methodology and the implications of carrying out an action research that is explicitly political. A discussion on the first objective, "to develop a socio-technical approach on sanitation", will then follow. In a final sub-section, I will discuss some other personal aspects from this thesis research period .

7.3.1 MULTIPLE ENACTMENTS

In her book "The Body Multiple", Mol (2002) has shown how objects (in her case atherosclerosis) come to life through a series of enactments; practices, instruments, language etc. are all needed for this object to exist. More importantly, she has shown how these enactments can be multiple: by referring to the same object, but carrying out different tests, with different bodies (and body parts), by different disciplines of medical professionals, the object in question becomes multiple. This multiplicity implies choice, which leads to ontological politics; Mol acknowledges this and briefly engages with this, at the end of her book.

When first embarking on this process, I wanted to show different *perspectives* on the concepts of slums and sanitation. As I witnessed how a 'slum' had been built at the 6th World Water Forum in Marseille, I thought that this was a very limited *view* of what a slum is. I then set out to show what a slum *really is*. However, by reading Mol and through the commentaries of my supervisor, I am convinced that there is not a single representation of reality. Each representation of reality is shaped by how we see and would like to see the world.

Of course simultaneously, I also set out to criticise dominant development paradigms as well as governance models. At times, I struggled to combine this aspect with showing that different truths exist. After all, if different truths exist, who is to say that there is a best one; and if there is no best account, on what basis do I criticise? However, again with the help of Mol and my supervisor, I've managed to see that to show that there are various enactments, already challenges dominant ones. Furthermore, by describing the effects of the different dominant ontological enactments I have been able to show that what the impacts of these are on the 'poor', the 'slumdwellers', the 'women of the slum', 'Mumbai's Muslims' and so on and so forth. I now realise that this is also a form of enacting, but for me this reflection of reality is a very powerful form of critique.

In this manner Mol's book has proved to be very valuable for this thesis. I believe that this line of thinking will be of major influence in critical studies on water management (or any topical subject for that matter). Critical water studies may be a small and marginalised field within water management, but still I think it is a very relevant (and hopefully also significant) one, as it constantly challenges conventional wisdoms and dominant paradigms. Much of the critical work on water management is already engaging with ontological politics, but it is not always defined as such. Molle's 'nirvana concept' (Molle, 2008) is in my view nothing else than a prelude to ontological politics. I believe that Mol's praxiography has sculpted the conceptual tools to go about this in a structured manner.

My work mainly deviates from Mol's by clearly stating my political preferences from the start. The idea of studying ontologies originates from my beliefs, while in "The Body Multiple" Mol's choice of treatment appears to be a consequence of acknowledging different ontologies. In the field of water management, I believe my position to be more constructive, as water is a politically contested resource. This is however a classic case of "preaching to the choir": those that accept that water is indeed politically contested are likely to embrace the concept of ontological politics, while water-professionals who see their work as a "neutral" profession will probably also reject this approach.

This leads me to the following point of concern: is the idea of ontological politics too abstract? While it is a nice concept to play around with in a MSc thesis, it does lead to confusion when trying to communicate my work to others. Among peers it is not always that straightforward to see sanitation linked to ontologies, let alone to those working in the field. I have often wondered how to explain my thesis to a BMC-official, a WaterAid employee or my co-workers at YUVA. This is a very relevant question to ask, as failure to be able to communicate this work outside the realm of academia seems like a failure to bring about any substantial change. However complicated it may be, I believe that the concepts of enactments, with all their practical facets are exactly the way out of this conundrum. By clearly referring to documents, practices and objects that people use in their everyday (work) life, it becomes possible to make the abstract understandable to all. In fact this is what Mol and Law do in their work, by constantly relating to practices. Nevertheless, I have no illusion that it would be possible that the practices of, for example, a BMC-official would change if I was able to explain the results of my thesis to him[63]. This is partly because there is lack of perspective to perform differently, but also because each enactment serves a certain (political) interest. Enactments do not come forth from coincidence but from material-semiotic constellations that are linked to a network of actors; therefore, to challenge and replace a dominant enactment is to do politics.

7.3.2 POLITICAL SOCIETY

Chatterjee's concept of 'political society', is already in use in water management literature; it was in fact Karen Bakker's "Privatizing Water" (Bakker, 2010), that led me to Chatterjee's work. It is indeed a concept that is far easier to understand than that of ontological politics. Actually, it explains a great deal about democracy, to some extent even in the Western context. There are two aspects which are central to Chatterjee's 'political society' which have been very fruitful in this thesis. The first is the notion that people organise politically to achieve certain objectives. This idea is very global, as interest- and lobby groups can be found all over the world. The second aspect, explains why they are forced to do so; this is the aspect that has been crucial in understanding the events as they took place in Garib Nagar. It is the latter aspect that has led to one of the main findings of this thesis: through the material-discursive enactment of the BMC, the residents of Garib Nagar are forced to work through 'political society' to obtain basic services, leading to a nexus of local politicians, bureaucrats and slumlords.

The time I started reading "The Politics of the Governed: Reflections on Popular Politics in Most of the World" (Chatterjee, 2004) also coincided with the time that we (the YUVA team and me) were engaging in the process

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[63] I would write 'him/her', if the workforce of the BMC would not consist almost exclusively of men.

of working with local groups and politicians as I have described in this thesis. This made me able to reflect almost instantaneously on my activities at a conceptual level.

In that sense it was almost a consolation to read his work. Of course, I had heard and read about "vote-bank" politics and this system of service provision in exchange for votes. It was my objective to try to do things differently in my action research. However, running into the obstacles that I've described elsewhere in this thesis, working through politicians proved to be the only viable alternative. I also sensed that it was not YUVA's preferred approach, but also they felt an obligation towards the residents to deliver services on a timely basis. Chatterjee has been able to convince me that political society, despite all its flaws, is still a system that has worked to some extent for the poor and marginalised.

As I've explained earlier in this thesis, it struck me upon my arrival in Mumbai how the differences between the poor and the rich are so blatantly clear. I could not, and to some extent I still find it difficult to understand, how those living in slums, despite forming the majority of the population, have not been able to improve their conditions through organised political action. Now, looking back I understand that this is a situation deeply rooted within history of Indian society. I also understand how divisive politics have helped to frustrate any coordinated effort to "change the system". But Chatterjee has also helped me to realise how people get by on a day-to-day basis. While revolution, or large scale political action may sound logical to some, it may not be the most desired action by the poor. Many I spoke to, saw their stay in a Mumbai slum as something temporary to build up something better in their home village; of course temporary could mean up to thirty years or more.

Of course, the political society (i.e. the nexus of slumlords, politicians and bureaucrats) and its material manifestations (e.g. the communal toilet block) are not something that can be found only in Garib Nagar or India; Chatterjee's correctly refers to "popular politics in *most of the world*". Therefore I believe that the concept of political society, especially its recursive nature, is one that is crucial to consider in studies on urban water provision. I also believe that further research is needed to understand how the recursive processes of political society take place within a bureaucracy. This would also facilitate reform processes of these organisations.

7.3.3 POLITICAL ACTION RESEARCH

Working with YUVA and the *Umeed* project has been a great experience both personally and topic wise. The combination of working with these two organisations made it particularly interesting for my research due to the distinct approach of each and their mutual collaboration. *Umeed* is a project with a focus on children and families; health and education play an important role in this. For this purpose, the project needs to be as inclusive as possible: the number of children that are vaccinated or go to school should be as high as possible. To 'maximise' the number of beneficiaries the project cannot be too political or outspoken as it may result in some families keeping their children away from the project's activities. As I have shown in this thesis, these interests lead to a specific enactment of Garib Nagar. YUVA however, is a rights-based organisation: its work, also within *Umeed*, is to promote human rights and empower those that are marginalised. This leads to a completely different enactment of Garib Nagar. This can be compatible with the non-conflictive approach of *Umeed*, but it can also lead to clashes. For example, YUVA's work on the right to entitlement is in perfect harmony with *Umeed*'s other work, as they facilitate access to documents such as birth certificates and ration cards. However, the work that YUVA does on women's or children's rights, may lead to some conflict within the families or the community; especially when sensitive topics are touched upon. This exact problem also arose during the course of the water and sanitation study. When we as a research team decided to map the community's water and drainage networks we encountered quite some opposition, both from our colleagues within *Umeed* and the residents. It became clear that mapping these networks, especially the water pipes, and asking questions about payments for services was going to be a sensitive issue. For our colleagues within *Umeed* it was a risky operation, because it might therefore jeopardise their relation with the neighbourhood residents. As expected, our results showed that (informal) provision of water is directly linked to power

structures in the neighbourhood; it seems only logical that systematically gathering information on this topic and the involved actors would raise suspicion Despite that all actors were aware of the 'political society' behind water provision, they also knew that this system was not 'according to the book'. Enquiring publicly about this system not only sheds light on it, but it also 'performs' the enactment in an unusual way. Most likely, the 'political society enactment' functions best when it is not done under light and public scrutiny.

Working with YUVA on a "water and sanitation study" was great for my research in many other ways as well. It gave me the possibility to gain a first-hand experience of the constraints that those living in the slums face when trying to access basic services. Although I might have obtained these findings through other research methods as well, by *experiencing* these obstacles I understood clearly how the denial of basic services is linked to many other issues that the residents of Garib Nagar face. By working with the youth groups of Garib Nagar I understood how leadership in a slum develops through the use of local networks. By going with the women's group to the MP and observing her visit to Garib Nagar, I realised just how the system of vote-bank politics is institutionalised, even though it relies on informality. I believe all these insights could only have been generated by engaging deeply with YUVA and the residents of Garib Nagar: being exposed to other water-related struggles of YUVA around Mumbai showed me how widespread and interrelated the injustices are; evening conversations and developing friendships with some of the younger residents of Garib Nagar showed me how the discrimination that they faced is present at so many levels.

Of course, it has its limitations to work intensively only with one organisation. For example, the fact that I was working mainly with activists trained in social work also reflects on the lack of 'technical aspects' to my research in Mumbai. This is something that I'm well aware of and that I acknowledge, however, it was also my objective to work with activists on a topic that is so politically sensitive. In the second chapter of this thesis, I briefly sketched the type of research I wanted to carry out. This was to be of an interdisciplinary type, working with activists and residents of the research area. I explained how I believe that my research, to truly have an impact, must be anchored in everyday realities and reflect the political struggles of those that I claim to speak for. I felt that politics were often left out when discussing the topic of sanitation and that is why I chose to investigate it. Naturally, one may ask whether it is necessary to take a political position when carrying out such research. I believed before embarking on my voyage that it is, and I'm ever more convinced of it.

To be honest I find it difficult to imagine how one could carry out such a research in Mumbai without being politically conscious. First, I do not believe one can work on such a level of engaged research without being at least sympathetic to the cause of Mumbai's slumdwellers. Also, to engage with an activist group such as YUVA, one also needs to share more or less the same political views; however, this does not mean one cannot be critical of an organisation's work. It even proved to be difficult to engage with certain organisations without fully committing to them; my refused interviews with SPARC are an example of this. I believe that this shows how division along ideological lines also plays out in practice, this is the "either you're with us or against us" mentality. When the enactments of the one organisation are diametrically opposed to those of the official authority, it is already a political choice to work for either side. On a conceptual level, I think that only by embracing the political dimensions of the struggle from the start, one can fully appreciate and investigate this aspect; it is this attitude that led me to explore political theory, such as the above-mentioned work of Chatterjee. For me it is beyond any doubt that I would like to include this level of political commitment in my future work, wherever that may be; even though I'm conscious that this excludes a lot of places that I would be able to work.

In the second chapter I briefly sketched the type of research I wanted to carry out. This was to be of an interdisciplinary type, working with activists and residents of the research area. I explained how I believe that my research, to truly have an impact, must be anchored in everyday realities and reflect the political struggles of those that I claim to speak for. These views of mine were inspired by a workshop of scholar activists I attended at the "Alternative World Water Forum" in Marseille, France in March 2012. The panel was discussing their experiences on combining research and activism. A few points that stuck with me were that according to

them research must be timely, in the sense that it must reflect the current struggles of the community; the researcher must also go through all kinds of efforts to make the research as participatory as possible, this implies that the researcher must be willing to step out of her/his narrow topical focus and be willing to include other issues into research (questions); people do not live their lives and struggles in single-topic questions that lend themselves for research. Exemplary of this narrow topical focus was my initial limitation to sanitation as enacted in terms of faeces and toilets. My understanding of 'sanitation' has in fact also changed throughout the thesis research, to one which is more comprehensive in topics (e.g. solid waste, urine etc.) and in social analysis (notions of purity, cleanliness etc.). I have also addressed the issue of relevance by carrying out an action research: researching a process as it unfolds (in this case the struggle for toilet provision and garbage collection).

However, in India I also often realised that adhering to these guidelines is not an easy thing to do. I found it to be extremely tiring to work in tropical humid conditions; in Garib Nagar this heat and humidity could even be more oppressive. I felt that in these conditions sometimes I was lacking the extra energy that I needed to follow the guidelines stated in the workshop in Marseille. In the evenings and when writing for my blog, I often reflected about how things were going with my research and how I would have liked them to go. I realised that many of my worries also arose from working as a volunteer with an organisation like YUVA. I found it to be very hierarchical, even though I realise that in India YUVA is by no means hierarchical. However, I must emphasise that working within a team, even if sometimes difficult, proved to be very useful. According to YUVA's working protocol everything had to be thoroughly discussed with the supervisor, this was a way of working that gave me far less independence than I was used to; yet, it made me very aware of the local sensitivities and it made sure that my work was always in support of YUVA's larger programme.

Carrying out research that is explicitly political of nature also gave me a great deal of satisfaction I have experienced the difference between being an 'engaged researcher' and a 'politically active' one in the fact that I have committed myself to a cause. At home in the Netherlands I often find this difficult: either the cause is not "mine", there are too many causes tackled at once, or I don't feel at ease with the fellow activists. In Mumbai however, I gladly participated in all the activities of YUVA, such as demonstrations, flyer distributions and a visit to the High Court. I did this partly out of interest in the organisation, but also because I felt that these were complementary to each other. My constant presence at all these YUVA activities, even those not directly related to Garib Nagar, was also appreciated by my supervisor of YUVA, as he pointed out in our final meeting. What made me willing to participate in all these various activities is that my colleagues and friends within YUVA were themselves personally involved in the issues they protested against and fought for. Various colleagues of mine joined YUVA after participating in actions against evictions or struggles for water in the slums, as they themselves were living in the affected areas. This made activism for me a much more personal matter, one which I gladly wanted to join.

7.3.4 CRITICAL VIEW ON SANITATION

During the courses of my Master's programme I taught how to analyse issues in (rural) water management as socio-technical phenomena. One of my objectives for this thesis was to develop a similar approach in the field of urban sanitation. After having written and re-written more than one hundred pages on the slums and sanitation in Mumbai, I can state that I have reached my objective. It was never my objective to 'revolutionise the field' and I certainly do not believe that everybody that 'does sanitation' should be aware of all the possible enactments of the subject. I do take comfort in the fact that there are people out there that just want to build toilets.

However, at the same time I also believe that there is a lack of critical work carried out in this field. Most social science research that is carried out within this domain is usually of an applied nature; for example, in assessing the feasibility of 'new' sanitation systems or approaches. One of the biggest objections I have against this type of work is that it is often prescriptive and lacks a critical social perspective of the very approach or model it is

trying to promote. Of course, as I've argued in this thesis, this is logical, as each enactment of sanitation serves to promote the actor/network behind the enactment. However, while enacting sanitation, these actors are also enacting the 'user'. This user also becomes some abstraction of reality that fits the product or service that is concerned. At the same time I am aware of the need for this enactment of the 'user', for I am convinced that a sanitary system should address the needs of the users. Sometimes I run into expressions like "creating a demand for sanitation" or "sanitation marketing", making it sound like sanitation has to be sold to people; now I think that this 'marketing need', only comes forth from the mismatch between different enactments of 'sanitation' and its 'users'. Nevertheless, I am often bewildered at the 'solutions' that are proposed (e.g. plastic pee-poo bags, solar power plasmification toilets etc.) and wonder if those that came up with these would use it themselves when having to defecate.

This thesis has attempted to analyse sanitation (or the lack thereof) as the material manifestation of wider issues in society. I have avoided the pitfall of trying to 'provide a best solution' by analysing the various enactments of slums and sanitation. However, I did describe the effects of these enactments on those that live in the slums as I am convinced that they bear the brunt of poor service provision.

When explained in neutral terms, for example 'understanding the perspective of the poor', not many object to this approach. However, when openly challenging ontological domination, by making clear that other enactments of sanitation are possible and that each enactment has a different effect, I suspect that the people/network behind a dominant enactment might object. Throughout this research I have become more and more aware of the underlying assumptions and enabling material-semiotic 'hinterlands' behind many sanitation models, which are spread through international development aid. I have also understood how these enactments eventually also serve to the benefit of the organisation behind these.

This thesis is no different: by developing a 'socio-technical approach' or even a 'critical political view on sanitation", I am also creating an enactment that serves my own interests. In my view sanitation is linked to structural inequalities in society. I relate the fact that some have access to flush toilets while others close by defecate along railway tracks to an outcome of a socio-political process. As I argue for this, I am also creating my own space within a research community and that, cynically, is how also my 'socio-technical enactment' goes to serve my personal interests while talking on behalf of 'the poor'.

7.3.5 PERSONAL GROWTH

Living in Mumbai has been a great experience for me. As stated at the beginning of this thesis, I have a fascination for 'mega-cities', especially after an enjoyable experience in Lima. Mumbai was a bit more extreme in and it has somewhat cured me of this fascination, at least for a while. When first arriving in a city everything is new, all things are fascinating, no matter how extreme they are; it's like being a small child at the zoo. After a while the initial fascination brushed off and I slowly realised that many aspects of Mumbai life, such as taking a packed train every day, are in fact quite tiresome. Although I thoroughly enjoyed my stay in Mumbai, it was also quite challenging at times. Life in such a 'mega-city' feels like a constant rat-race as all the millions people in the city struggle to move ahead in life; and I realise that my position was in many ways much easier than those of millions others. In fact, just as the slum and sanitation are multiple, so is the city. Mumbai is done in a myriad of ways and some of these enactments are very powerful and oppressive. However, it is also a city of opportunities for many people. I have learned that the other object of my fascination, the 'slum', is as much a result of the oppression of Mumbai's politics as of the possibilities that the city provides.

In fact, the 'slum', is also less of a mystery to me than before my field research. My initial wish before even writing a thesis proposal was to live in a slum during my research. Despite trying hard to achieve this goal, I only managed to sleep, but not live there. Sometimes I still think that this is a missed opportunity, but I still believe that I have achieved what I wanted without living in the neighbourhood. My idea was to 'experience' the problems of the slum and by living the 'slum-life' I hoped to understand what the issues are that the residents face. Most of all, my biggest concern was that I would talk (or write) in their behalf without really

understanding the issues that they face. As I now understand, I was a bit narrow-minded. I will never be able to write on somebody else's behalf and I will never be a slum dweller. As I was trying to live in Garib Nagar, the residents and my colleagues kept telling me I shouldn't, by pushing too hard I felt I was putting them in an uncomfortable position. On one side they feared for my safety, but I sensed that I also didn't belong there. A slum area is quite a nice area in a city, because the social tissue is finely woven. Everybody knows each other and keeps an eye out for each other; kids play in the small lanes, residents mediate when fights break out and although privacy is absent the daily discussions on the lanes are pleasurable. In fact, as I experienced it, a slum is best comparable to a small village within the city. By going there daily, I showed my honest intentions to the residents and gained their trust. But I would never be a part of "their village", for that I was too much of an outsider; my views on religion and the position of women, just to name two aspects, would eventually disturb the fine fabric of the area too much. Nonetheless, I took great joy from chatting in the evenings, drinking chai, going to movie shows and eating kebabs with my friends from the neighbourhood.

The topic of sanitation is also something that I have explored to great extent over the last years. At this stage I feel that I need to look beyond this topic as well. One reason that I became an enthusiast on sanitation (studies) is that the topic is often forgotten when talking of "water and sanitation"; however, at this stage I feel that this is not necessarily the case, especially in applied research. In the realm of (critical) social research, I believe that there is still much work that can be done. Especially the enactments of sanitation in terms of cleanliness and purity are quite fascinating issues; it would be interesting to find out more about similar enactments in other parts of the world. However, as my research has shown, this is not exclusively linked to toilets, but encompasses a wide variety of service provision sectors.

Regarding research, I have found out that it is a lonesome process. Although the research for this topic was a social activity, the abstractions and writing process have been a fairly individual process. Supervisors provide help, but they can't be present all the time and friends and family may not necessarily be interested or able to follow the process completely. I suspect that this will become worse once one continues with a career in (academic) research. However, at this moment this is where my ambitions lie; the degree of (intellectual) independence and challenges that I've encountered have only stimulated me further throughout this process. In the rare moments that I've been able to share my work with others the reactions have been enthusiastic, making all my work worthwhile. The weblog I have written during my stay in Mumbai has also proven to be a fantastic tool: not only where the responses very positive, writing there also helped me to ventilate my frustrations as they came along.

One last advice I would give to my former self is to keep a broad view. In the case of Garib Nagar, it seemed obvious to look inside the area in order to gather data. However, I found out that exactly that the more interesting things were to be found in the places least expected. When interviewing the residents together with my colleague Raju, it became clear that although he lived in a flat apartment, he was receiving less water on a less frequent basis and for higher costs than the inhabitants of Garib Nagar; water comes every other day in his area and he obtains it from his neighbours. His house may be made from more *pucca* materials, but his tenure security was just as precarious. Although my friend and colleague was living in a concrete building, he had to travel each day for two hours to get to the city, while those in Garib Nagar were living in a very central location (although officially a suburb). This really made me question whether I was 'fighting' for the right people and to some extent it shows just how extreme the city of Mumbai is.

7.4 A NEW ENACTMENT OF SANITATION?

This study has provided an analysis of different enactments of sanitation and slums. Thereby, it has been shown how these enactments depend on enabling material-semiotic 'hinterlands' and constellation of actors to come into being. Through development projects and international policies various enactments of sanitation and slums are also able to travel around the world. In this process, the differences in power of the involved institutions, allow that some enactments become dominant over others. In this chapter I have argued how

these processes of dominance work and what effects these have, in four themes that are present throughout this thesis: 'development', 'modernity', 'authority', and 'citizenship'. Above I have also stated that this thesis is also another enactment of sanitation.

In this last section, I would like to speculate a bit further on this last notion. As I mentioned earlier in this thesis, sometimes I just want to 'do something'. So, if I were able to further develop an enactment on sanitation in a settlement, for example through an externally funded project, how would it look like? Which material-semiotic 'hinterlands' and constellation of actors would be necessary to make it to come into being? What would the effects of such an enactment be? How could it become dominant? Below I would like to provide some final thoughts on this subject.

7.4.1 SANITATION IS POLITICAL
The most relevant findings of this thesis are the political structures of service provision. Systematic segregation of parts of society from water and sanitation services is a common phenomenon in cities all over the world. A new enactment of sanitation will have to face this political character.

Through the recursive nature of illegality, those in Mumbai's settlements are pushed into political society. However, reforming the institutions and policies that enact this state of illegality is a long and tedious process. Reforming political society is also difficult, but this is something that can be tackled at the local level. In the 'water and sanitation study in Garib Nagar' we, the research team, have tried to strengthen the women's group and their position in relation to the politician and the powerful groups of the area. This is not an easy task, but the social workers of *Umeed* have shown me that it is certainly possible to work on this.

At the same time YUVA have shown me that there is a need to reform the structural inequalities of Mumbai's society. Their struggle in the High Court of Mumbai in order to have the rights to water of people in illegal settlements recognised is part of this. Of course it a long end exhausting process. The high court judges come from the same socio-political class and background as those that actively enact Mumbai's slums as illegal. The outcome of such a court case is therefore unlikely to be ruled in YUVA's favour. But they are also active in demonstrations of slum dwellers, in federations of water users and use these movements to build large-scale support for their actions.

International support for these local struggles would help. This is not easy either, as international organisations working in a certain area are not free to publically criticise the state institutions of that place. Nevertheless, there are some possibilities. The recognition of water and sanitation as a human right could be a tool to put international pressure on governments to push for reform. Further research and dissemination of knowledge on the political dimension of sanitation could also influence how sanitation is 'known'. However, both processes are very difficult to steer and to predict what the outcome of these might be.

7.4.2 SANITATION IS SITUATED
My advice to anyone trying to 'solve' the 'sanitation problem' would be to investigate and understand the problem first. In this thesis I have understood how sanitation is situated; in Garib Nagar I have seen how the 'sanitation' problem is not just lack of a toilet, but also includes poor drainage and no collection of solid waste. These aspects are often included in the definitions of dominant enactments of sanitation, but seldom included in projects; it is 'known' but not 'done'.

The same applies to cultural notions. Aspects of privacy and dignity are 'known', but often not 'done'. This research has shown that sanitation, in all its facets, is a very personal human affair. Lack of sanitation leads to loss of dignity and turns people into "second-class" citizens. Although the profession and thinking about sanitation has emerged from an engineering perspective, there are also many social and cultural aspects to it. For example, I have shown how notions of cleanliness and purity are closely related to sanitation and toilets. These aspects are just as important in Europe as in a slum of Mumbai. However, what is considered pure or

clean may differ and possibly even conflict with microbiological ideas of hygiene. I would suggest as a way forward to understand and design sanitary systems to accommodate these different notions rather than try to "change behaviour". In India it is clear that these notions of impurity go very deep and are related to extreme forms of discrimination, as in the case of human scavengers. Any external effort to bring about change cannot afford to ignore these issues.

In practice this would entail that for example when designing new sanitary systems or new toilets, the assumptions must be made clear. A new form of applied research into these topics does not take an area such as a Mumbai slum as a *tabula rasa* where all these technologies fit without a problem. It therefore does not take the "low-cost" as main design criteria, but analyses *in situ* what the problem to be addressed is. For example, in Garib Nagar, one of the main aspects leading to open defecation was the long queues in the morning.

7.4.3 ANY ENACTMENT HAS EFFECTS

A crucial insight from this thesis is that any enactment of 'slum' and 'sanitation' will create some "collateral realities". In this process, by doing one object, other objects are shaped along the way; For example, by doing sanitation a 'user' is created. Therefore a new enactment of sanitation would have to be very aware of the effects it generates.

For example, by stating that open defecation is a 'bad' practice, the people that carry out this practice are also villainised. Likewise, by creating a communal toilet block for the poor, their marginalisation is further materialised. Citizenship is not only about having the same rights, but also about having access to the same products and services provided by the state. At the same time differentiated access to services is an enactment as well; one that has to be taken into account.

Any new enactment (e.g. in the form of a new toilet or sanitation approach) would have to consider these unexpected effects. Achieving these insights is by no means an easy task. My advice to my future self would be to constantly consider and discuss these effects with others, mainly with those that are on the receiving end of a new technology or approach.

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ANNEX 1) LIST OF INTERVIEWS (CONDUCTED PERSONALLY)

Sudhakar S. Kini - *Hony. Chief Architect – Sulabh international Social Service Organisation – Maharashtra Office* (17-8-2012)

Sitaram Shelar, City Program Coordinator, Mumbai: YUVA-Urban (27-8-2012)

Dr Jalindar Adsule - Nirmala Niketan - College of Social Work (30-8-2012)

Avinash Kadam ex BMC hydraulic engineer now water-activist (8-9-2012)

Sarath (last name unknown) Committee for the Right to Housing (14-9-2012)

Supriya Jan and Mumtaz Sheik - Right to Pee Campaign/CORO (26-9-2012)

Kalpana Sharma Journalist, Writer (1-10-2012)

Matias Echove URBZ co-founder (9-11-2012)

ANNEX 2) FOCUS GROUP DISCUSSIONS AND INTERVIEW QUESTIONS (CARRIED OUT WITH YUVA/UMEED)[64]

FGD Guide for Adolescent Girls

1. **Water**

What is the situation of water supply in Garib Nagar? Timings, duration, sufficiency, colour of water, smell…

Are there fights around water? If yes, why?

Are you involved in filling water for home? What are the problems you encounter with water supply? How many hours do you spend on filling water? Who all at home are involved in filling water?

Who do people buy water from?

If you use cloth during your periods, how often do you wash the cloth during the day?

2. **Toilets**

What is the situation of toilets in the area? Are the toilets clean? How often are they cleaned?

What about the toilets needs to be changed?

Are the toilets lit? Is it safe to use them? Is it safe to use them at night? Do you face harassment while accessing toilets? Do you go alone or in group or with a family member?

Is there a queue for toilets? How long does one have to wait on an average? (e.g. at peak times such as morning)? What happens when one has an upset stomach?

What is the solution to the problem of toilets?

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[64] These questions have later have been translated to Hindi and slightly adjusted in the process.

3. Drains

What is the state of the street drains?

What is the state of the nala in normal times and in the monsoon? How does the flooding affect you?

Do you think drainage is a problem? What according to you are the problems and causes?

4. Solid waste management

How do you dispose household waste? (if outside the house? Why?)

Do you use sanitary napkins or cloth during your periods? How do you dispose the sanitary napkins?

5. Community efforts

Are you aware of any community / political parties initiatives around water, toilets, garbage? Have you been involved in them? If not then why not? If yes then what kind of involvement? What was the outcome? Were you involved in the discussions on these issues? With who do you discuss them?

Do you feel the need to change the existing status of toilets/water/garbage disposal? Do you see yourself being involved in trying to solve these issues? In what manner?

FGD Guide for Young Girls and Women (18-35 years)

1. **Water**

What is the situation of water supply in Garib Nagar? Timings, duration, sufficiency, colour of water, smell, legal…

Are there fights around water? If yes, why?

Who all at home are involved in filling water?

Who do people buy water from?

How can the issues around water be resolved?

2. **Toilets**

What is the situation of toilets in the area? Are the toilets clean? How often are they cleaned? Do the toilets get blocked? Regularly? What are the reasons for bloackage? Sanitary napkins?

(How many usable toilets in the area? What makes certain toilets unusable? (blockage, smell, broken doors, lack of water, no light etc.)

Is there water supply to the toilets (running water in the toilets or do you fill a bucket to take inside? Is it sufficient? Is there water to flush the toilets?)

Are the toilets lit? Is it safe to use them? Is it safe to use them at night? Is it easy for the elderly/ disabled to use? Do you face harassment while accessing toilets? Do you go alone or in group or with a family member?

Is there a queue for toilets? How long does one have to wait on an average? (e.g. at peak times such as morning)? What happens when one has an upset stomach?

What is the solution to the problem of toilets?

3. Drains

What is the state of the street drains?

What is the state of the nala in normal times and in the monsoon?

Which areas get flooded? Does the water enter homes?

Do you think drainage is a problem? What according to you are the problems and causes? And solutions?

4. Solid waste management

How do you dispose household waste? (if outside the house? Why?)

Do you use sanitary napkins or cloth during your periods? How do you dispose the sanitary napkins?

5. Community efforts

Are you aware of any community / political parties initiatives around water, toilets, garbage? Have you been involved in them? If not then why not? If yes then what kind of involvement? What was the outcome? Were you involved in the discussions on these issues? With who do you discuss them?

Do you feel the need to change the existing status of toilets/water/garbage disposal? Do you see yourself being involved in trying to solve these issues? In what manner?

FGD Guide for Adolescent Boys
<u>Drinking Water</u>

Are there any problems with water?

Water quality issues?

Who fetches the water?

Are the fights around water?

How much do they pay for water?

Solution for water?

Where do you bathe?

<u>Toilet</u>

Where do they go to the toilet?

Do they go alone?

How do you feel about it?

What do you do in case of diarrhea?

Is the pay and use toilet clean?

Drainage

How is the drainage?

How about the garbage collection scheme?

What are their suggestions for Garib Nagar?

Garbage

Where do you throw the garbage?

What are the suggestions?

FGD Guide for Young Men (18-35years)
Drinking Water

Are there any problems with water?

Water quality issues?

Who fetches the water?

Are the fights around water?

How much do they pay for water?

Toilet

Where do they go to the toilet?

Do they go alone?

How do you feel about it?

Is it safe?

If it is dangerous why do you go outside?

Is there any impact on the education of their children?

 Is there a pass system or you pay daily?

Where do you pee?

Drainage

How is the drainage?

How about the garbage collection scheme?

What are their suggestions for Garib Nagar?

FGD Guide for Men (50 and above)

1. History

When did Garib Nagar originate? Which areas do most inhabitants come from?

What is the legal status of your house and Garib Nagar? Has the area faced evictions?

Who are the important political leaders in the area? What has been their contribution to the development of Garib Nagar?

How are decisions regarding community issues taken? Who decides? Do you play a role in them?

2. Water

What is the situation of water supply in Garib Nagar? Timings, duration, sufficiency, colour of water, smell…

Are there fights around water? If yes, why?

Who do people buy water from?

3. Toilets

What is the situation of toilets in the area? Are the toilets clean? How often are they cleaned?

(How many usable toilets in the area? What makes certain toilets unusable? (blockage, smell, broken doors, lack of water, no light etc.)

Is there water supply to the toilets (running water in the toilets or do you fill a bucket to take inside?

Are the toilets lit? Is it safe to use them? Is it safe to use them at night? Is it easy for the elderly/ disabled to use?

Is there a queue for toilets? How long does one have to wait on an average? (e.g. at peak times such as morning)? What happens when one has an upset stomach?

4. Drains

Do you think drainage is a problem? What according to you are the problems and causes?

5. Solid waste management

How do you dispose household waste? (if outside the house? Why?)

6. Community efforts

Are you aware of any community initiatives around water, toilets, garbage? Have you been involved in them? If not then why not? If yes then what kind of involvement? What was the outcome? Were you involved in the discussions on these issues? With who do you discuss them?

Do you feel the need to change the existing status of toilets/water/garbage disposal? Do you see yourself being involved in trying to solve these issues? In what manner?

FGD Guide for Women (50 and above)

1. History

When did Garib Nagar originate? Which areas do most inhabitants come from?

What is the legal status of your house and Garib Nagar? Has the area faced evictions?

Who are the important political leaders in the area? What has been their contribution to the development of Garib Nagar?

How are decisions regarding community issues taken? Who decides? Do you play a role in them?

2. **Water**

What is the situation of water supply in Garib Nagar? Timings, duration, sufficiency, colour of water, smell…

Are you involved in filling water for home? What are the problems you encounter with water supply? How many hours do you spend on filling water? Who all at home are involved in filling water?

Are there fights around water? If yes, why?

Who do people buy water from?

3. **Toilets**

What is the situation of toilets in the area? Are the toilets clean? How often are they cleaned?

 (How many usable toilets in the area? What makes certain toilets unusable? (blockage, smell, broken doors, lack of water, no light etc.)

Is there water supply to the toilets (running water in the toilets or do you fill a bucket to take inside?

Are the toilets lit? Is it safe to use them? Is it safe to use them at night? Is it easy for the elderly/ disabled to use?

What about the toilets needs to be changed?

4. **Drains**

Do you think drainage is a problem? What according to you are the problems and causes? And solution?

5. **Solid waste management**

How do you dispose household waste? (if outside the house? Why?)

6. **Community efforts**

Are you aware of any community initiatives around water, toilets, garbage? Have you been involved in them? If not then why not? If yes then what kind of involvement? What was the outcome? Were you involved in the discussions on these issues? With who do you discuss them?

Do you feel the need to change the existing status of toilets/water/garbage disposal? Do you see yourself being involved in trying to solve these issues? In what manner?

ANNEX 3) WATER AND SANITATION SURVEY GARIB NAGAR (WITH YUVA/UMEED)[65]

House Number _____

1. House rented / Owned

2. Number of people in the house _____

    a. Men _____

    b. Women _____

    c. Children _____

3. Do you have a water connection – Y / N

4. If no, where do you get water from _____ and how much do you pay for it _____

5. If yes, individual / group

6. Installation charge for water connection _____

7. Monthly water bill _____

8. Do you have a toilet in the house – Y/N
9. If no, where do
    a. Men go
    b. Women go
    c. Children go

10. What is the monthly expense on toilets _____

11. Did you pay for installation of drainage pipe outside the house Y?N
12. If yes, how much _____

13. What is the monthly expense on garbage disposal _____

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[65] These questions have later have been translated to Hindi and slightly adjusted in the process.